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THE

WESTERN JOURNAL,

AND

Civilian,

DEVOTED TO

Agriculture, Manufactures, Mechanic Arts, Internal Improvement, Commerce,

PUBLIC POLICY,

AND

POLITE LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & H. COBB,

EDITORS & PROPRIETORS.

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THE

WESTERN JOURNAL

and Civilian.

VOL. XIV. June, 1855. No. I.

ARTICLE I.

Beauty—Its Moral Uses.

Weary of discussing subjects relating to the pursuits of individuals and the policy of communities, we turn to a theme more agreeable to our taste, and if we can unfold its true nature to the view of our readers we are persuaded they will not be displeased at this departure from the general character of our leading articles.

Much has been written by philosophers and poets on the subject of beauty; but in our opinion, neither the theories of the former, nor the descriptions of the latter, have served in any considerable degree, to enlighten mankind in respect to the true nature and moral uses of the beautiful.

Whether beauty be a quality of mind or of matter, or whether it consists of form, color or motion, are questions of little importance in comparison with the benign influence which it was ordained to exert over the individual and social condition of man. Whatsoever may be that quality of physical objects which excites emotions of beauty, it abounds everywhere in nature, and we have only to open our senses to its perception and our hearts to its influence to enjoy a state of perennial delight. Yet, unconscious of its existence, men look abroad on nature's brightest scenes and perceive nothing to excite emotions of beauty, nothing to fill their hearts with joy, their souls with love, or move their tongues to praise the Author of their being.

Oh, that I were a child again! exclaims the man who, yielding to his grosser appetites, or devoting his life to the pursuit of wealth or station, neglects to cherish the involuntary emotions of beauty until he loses the faculty of perceiving its existence. Oh, that I were a child again! sighs the woman, who limits her views of the beautiful to objects relating to personal embelishments, and vainly seeks in art

the soul-refining and lasting pleasures which can be derived only from the pure fountains of natural and moral beauty.

What made the days of childhood so joyous, and why are they remembered as constituting the happiest period of our existence? With all their enjoyments children are subject to painful disappointments, to grief and inquietude, which they feel even more keenly, perhaps, than individuals of riper years. Subject to most of the evils incident to manhood, their reasoning powers but imperfectly developed, and receiving little support from the lights of philosophy, the condition of children would be wretched almost beyond endurance did they not derive pleasure from some peculiar, unfailing source congenial to their state. That source is beauty : an attribute of nature coeval with Deity, infinite, and eternal.

The condition of childhood being in harmony with nature, the young mind instinctively perceives the beautiful in all objects which come within the range of the senses. To the child, all seasons abound in the beautiful. The bright flowers of spring, the blushing fruits of summer, the brown nuts and fading leaves of autum, the ice and fleecy snows of winter, all excite emotions of beauty which bring the soul into harmonious communion with the universe, and dispel all sense of disappointment and grief from the heart.

Moreover the young mind possesses a keen perception of moral beauty. The expression of moral beauty beaming from the countenance of parent or friend—the most beautiful of all moral phænomena —conceals every physical deformity, and even the vices of the individual are not remembered while the charm of affection continues. Hence the mental inquietude of children, though frequently poignant, is generally transient. And so it would be through all the stages of life were men wisely to cultivate and improve that taste for the beautiful which was implanted in their nature by Deity.

The great conflict between the selfish and social elements of man's nature commences at his birth and ends only with his earthly existence. It is the office of philosophy and religion to harmonize these waring elements and direct their united energies to one end—the attainment of individual and social happiness.

In childhood, when a limited knowledge of facts affords little ground for the exercise of reason, nature kindly supplies its place and holds in check the selfish principle through the influence of beauty. But the passions are early and rapidly developed, and owing to the want of proper instruction, soon subjugate reason to their control. By degrees the perception of beauty becomes less distinct and its emotions less vivid. Objects which delighted the child be-

come indifferent to the man, until finally he yields himself a slave to self-love, doomed to struggle for wealth or station with men like himself, or perhaps to toil for a scanty subsistence without one emotion of beauty arising in his mind to delight his heart or raise his thoughts to heaven.

Doubtless such individuals would gladly return to the Eden of their childhood; but man is not allowed to shun the duties required of him by taking refuge in a state of infancy. It is a humiliating confession on the part of the man that he has fallen below the condition of the child. Accidents and misfortunes may occur to disturb the mental repose and mar the happiness of good men, but these are to be regarded as instances occasioned by unusual combinations of circumstances. For, in view of the infinite benevolence of the Creator, we are persuaded that HE endowed man with the capacity of ascending in the scale of happiness from childhood even to old age. And that that quality in nature, whatsoever it be, which excites emotions of beauty, is one of the principle means of his moral improvement.

A distinguished writer on the philosophy of the human mind, defines beauty to be "a pleasing emotion, and a delight which we feel as if diffused over the object which excites it." This is the definition of a learned professor laboring to convey an idea of the state of mind produced by beauty; but like metaphysical definitions in general it is dificult to comprehend, and would afford but little light on the subject, as we imagine, even if the meaning of the author could be understood.

We shall not attempt to define that which we regard as indefinable, but according to our view, *beauty is a manifestation of the benevolence of the Creator, and its emotions the incipient state of love, a social and moral element designed to be a perennial source of human happiness.*

The benevolence of the Creator is abundantly manifested in providing this infinite source of delight, ordained for the enjoyment of the human family—common and accessible to all—without distinction of wealth or station.

An emotion of beauty is love in its incipient state. For none have at any time loved an object, which did not appear beautiful either in itself or by reason of its being associated in the mind with other objects possessing the attributes of beauty.

As evidence that beauty is a social element we need only to observe, that its emotions are immediately and perhaps invariably succeeded by a desire that others should participate in the delight which we feel while under its influence. The first act of a child upon discovering or receiving a beautiful object is to exhibit it to others for their admi-

ration. And who of riper years has not often felt a wish that some friend were present to enjoy the beauties of a pleasing landscape or other objects which excite emotions of beauty in his own mind? A feeling of love has been awakened in his soul, he finds himself in harmony with nature, the accidents and cares of life are forgotten for a time, and a desire arises that his friends, and even the whole human family, should enjoy a similar state of happiness.

Though beauty be a moral element, we admit that its emotions do not uniformly lead to moral actions. For giving rise to selfish as well as to moral desires, and the former too often prevailing over the latter, in that case reason yields to the passions which blindly urge the individual onward in pursuit of the desired object, regardless of the means of attainment and of the consequences which may flow from a violation of social and moral principles.

In general, the emotions excited by moral beauty are stronger and more vivid than those produced by inanimate physical objects, and as we conceive, more practical in their suggestions; but it may be doubted whether their influence is in all respects so refining—we mean here that class of moral beauty which is perceived in the actions of men.

The emotions of beauty excited by the conduct of men are not always responsive to the degrees of merit involved in their actions. There is beauty in the life of one who, with due regard to the principles of justice, performs all the duties of his station with propriety, but, except in the minds of those who stand in near relation to such an individual his life rarely excites vivid emotions of beauty, unless it be attended by incidents which demand extraordinary sacrifices and call into action the heroic elements of his nature. The beauty of such a life may be greatly enhanced however by contrasting it with that of one whose career has been characterised by vicious conduct. It is then presented in a new light, and the quiet unobtrusive qualities which had escaped observation, or been regarded perhaps as negative are more distinctly brought to view, and we perceive a harmony in the picture which excites emotions of beauty and even a feeling of admiration.

To cherish, and study to give a proper direction to our natural instincts for the beautiful, is to cultivate and develop the higher virtues which elevate and adorn humanity. But it must be the beautiful as it is in nature: the beauty of truth, of justice, of benevolence, of love. As we contemplate the nature of these virtues, and as the beauty of their relations to human happiness is unfolded to view our thoughts and actions conform to our conceptions of their excellence

and the deformity of vice becomes more hideous. One who delights to contemplate the beautiful and the objects for which it was ordained is scarcely capable of committing a crime, or of doing an act designed to give pain or offence to his brother man. He will continually aim to exhibit in his own person the qualities which he admires, and endeavor to draw out the finer and more agreeable traits of those with whom it may be his fortune to associate.

The teachers of philosophy and religion have battled for centuries against the influence which the passions and self-love exert over the conduct of men, but the selfish elements are still in the ascendant, and judging from the moral state of the world at the present day, it would seem that little progress has been made in this vital department of human improvement. The discovery of new agents in the production of food and raiment has enlarged the volume of human subsistence, and ameliorated the physical condition of the inhabitants of most civilized countries, but it may be confidently affirmed, that improvement in the moral condition of the people and the progress of christianity have not kept pace with the improvements in physical science. Why is this so? We know that the principles of the Christian religion are abundantly sufficient to establish equal justice throughout the earth, to banish crime, to harmonize the selfish and social elements, and subject the passions to the control of reason. But how shall the human mind be enlightened and the hearts of men be inclined to adopt a philososhy so much at war with their selfish nature? This is a problem which we do not undertake to solve. But we humbly suggest that the cause of religion might be promoted by placing a higher value upon the influence of the beautiful. Could one unfold the transcendant beauties of christianity considered as a *social institution*, we are persuaded that he would excite emotions of love in many minds which resist the doctrines of faith in a state of future rewards and punishments. Thou shalt love the Lord thy God with all thy heart and with all thy soul and with all thy mind. This is the first and great commandment. And the second is like unto it: Thou shalt love thy neighbor as thy self. Hence it would seem that the first step taken on the part of the teacher should be to excite emotions of *love*; but how is that state of mind to be produced without the influence of beauty? We are told of the perfection of man in his primal state, of his disobedience, of his expulsion from the garden, and of his redemption. Far be it from us to criticise the beauty or question the truth of this narrative. But the slow progress of Christianity suggests the inquiry, whether without the harmonizing influence of the beautiful derived from other sources, the consequences of the first act of disobedi-

ence are not too terrible, even when considered in connexion with the redemption, to excite emotions of love in the minds of a large portion of the human family ?

We do not find that the author of our religion ever alluded to this first act of disobedience as the cause of the degraded and suffering condition of humanity, or that he ever adverted to it as an argument either to prove the necessity of his mission, or to persuade men to accept his doctrines. He came on a mission of love, and the beauty of his doctrines and precepts, if rightly viewed, is sufficient to inspire every heart with the most vivid emotions of love and gratitude?

That we may avail ourselves of the pleasures to be derived from the beautiful, and of its influence as a moral element, let us regard life and all the faculties and susceptibilities of our nature as the gift of the Creator, and then look abroad and contemplate the infinite sources of delight ordained for our enjoyment.

Besides their physical uses, all our senses are sources of exquisite delight. Day by day we are delighted by the grateful flavor and odor of the food required to renew and sustain our strength. Odors, sounds, and objects of vision, in no way necessary to our physical existence, abound in profusion without our toil or care. What a beautiful provision continually suggesting the benevolence of the Creator, and wooing our hearts to love and revere his attributes !

The labor necessary to produce the appliances of subsistence and comfort, if wisely ordered, is not only an agreeable exercise but opens to view the beautiful economy of nature, revealing her laws and the design of the various forms of matter. It also leads the enlightened mind to a pleasing contemplation of the nature and objects of that power which was given to man to subdue the earth, to modify and control its elements by changing their normal relations, and to educe new forms more appropriate to his wants and more gratifying to his senses. Ceasing to regard labor in the light of a curse degrading to his nature, and rightly appreciating its objects and uses, man would feel no desire to escape from it; and viewing himself vested with the power of subjecting even the elements to his control, he would experience a lively sense of moral dignity arising from the important trusts committed to his charge by the Creator.

Thus enlightened and elevated, he would view from a more favorable point of observation the relations which Deity designed him to occupy and sustain in the order and economy of the universe. And were all his senses closed to the perception of beauty in physical objects; did the sweet odors which float around the flowers of spring no longer afford delight; were the sound of instruments and the voice

of love and friendship no more to move his soul or touch his heart with joy; and, were the light of day with all its revealings, the stary vault of night, and even the silent expression of affection all shut out from his sense of vision, yet the beauty of his relations to his fellow man, to nature and to God would be sufficient to refine his thoughts, and fill his soul with love.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 331, vol. XIII. No. 6.

Details of Hunter life; The signs of the forest; Incessant watchfulness of military duties; Punishment of social offenses; Virtues of the frontier; Fights of the pioneers; Mechanic arts; A backwoods wedding; Bridal procession; House-building and warming; Sports of the frontier; State of medical knowledge; Witchcraft; Manufactures; State of education; Religion; General character of the frontier people

HUNTING. — The chief business of a frontier life was hunting. The preservation of life from day to day depended on the skill and fortitude with which it was pursued. It therefore constituted the highest dignity and enjoyment of a backwoodsman. A great hunter was his beau ideal of a great man. So dependent were our females at first on the produce of the hunt, "that it was no uncommon thing for them to live for several months without a mouthful of bread. It frequently happened that there was no breakfast until it was obtained from the woods."*

Moreover, fur and peltry were the people's money. They had nothing else to give in exchange for rifles, salt and iron on the other side of the mountains. In illustration of this currency which estimated property in bucks, that is their skins, instead of dollars and pounds — "a buck was valued at one dollar, a doe at half a dollar, it is believed." This may be exemplified by the following copy of a certificate recorded in Col. Morgan's journal: "I do certify that I am indebted to the bearer, Captain Johnny, seven bucks and one doe for the use of the States, this 12th April, 1779.

* Doddridge, 123.

Signed: Samuel Sample, Assistant Quartermaster. The above is due to him for pork for the use of the garrison at Fort Laurens.* Signed John Gibson, Colonel."

This is only a specimen of the paper currency of the frontier. Col. Gibson was the commander of this premature post on the west bank of the Tuscarawas, about seventy miles west of Fort McIntosh, a little below the mouth of Sandy creek. The certificates of which the above specimen is furnished, were redeemed, most likely in other *paper* or goods, by the Indian agent at Fort Pitt. This traffic was denied, in a great degree, to the far West, as Kentucky and the western portion of North Carolina, or the Holston settlements; owing to its distant position and the hostile state of the country, while the French settlements on the Wabash and Mississippi carried on a trade with New Orleans, then prohibited to the more eastern parts of the Ohio valley.

The exhilarating chase, so animating at any time, but stirring indeed, when the Indians might be lurking in any canebrake, was principally followed in the fall and the early part of the winter, after deer; during the whole winter and spring, for the fur animals. The season for hunting was often expressed by saying that "fur was good in every month whose name contains the letter R." As soon as the fall of the leaf had taken place, and the rains and light snow had come on, the frontier men, after having acted the part of husbandman, as far as the hostile condition of the country would admit, longed to be in the woods after the game with all the restless eagerness of the passion for hunting." "They became uneasy at home; everything about them became disagreeable. The house was too warm, the feather-bed was too soft, and even the good wife was not thought for the time a proper companion. The mind of the hunter was occupied with the camp and the chase. I have often seen them get up early in the morning, at this season, walk hastily out, and look anxiously to the woods, walk into the house, and cast a quick and attentive look at the rifle, which was always suspended to a joist, by a couple of buck horns or little forks. His hunting dog, understanding the intentions of his master, would wag his tail, and by every blandishment in his power, would express his readiness to accompany him to the woods. A day was soon appointed for the march of the little cavalcade to the

* Pioneer History, 133.

camp. Two or three horses furnished with packsaddles were loaded with flour, Indian meal, blankets and everything else requisite for the use of the hunter."

A hunting camp, or what was called a half-faced cabin or camp, was formed sometimes with a large log for its back; eight or ten feet from this, a couple of stakes were driven into the ground to receive the side-poles, and opposite to them two others, eight or ten feet from the former. Thus the sides of the camp were formed. The roof sloped from the front to the back; this was covered with slabs, skins or blankets; and if it was the spring of the year, the bark of the hickory or of the ash tree was employed. The front was left entirely open, and the fire kindled there. The openings between the poles were stuffed with moss and dry leaves, which formed both carpet and bed.

Such were the temporary shelters from the inclemencies of the weather, that were raised by the hunters in a few hours. A little more labor (but that was a hateful necessity to the free and independent, [might we not rather say the lazy?] habits of the pioneers,) might have rendered a hunting camp proof against any attack of Indians. As it was, vigilance did not always protect the white hunters from surprise and death in their camps from the Indians.

"The site of the camp called for the aid of the best sagacity of the woodsman to shelter it from the north and west winds. Nor was the situation of his camp the only way in which a hunter could show his wood-craft; so far from it, a skillful hunter could tell by the state of the weather, before he left his *permanent home*, where he should meet with the game, whether in the bottom, in the sides, or the tops of the hills. In stormy weather, the deer always seek the most sheltered places, and the leeward side of hills. In rainy weather, in which there is not much wind, they keep in the open woods on the highest ground. In all situations the hunter required to know the direction of the wind, in order to sit on the leeside of the game. For this purpose, he would put his finger in his mouth, until it got warm, and then raising it above his head, the side of his finger which first became cold would tell him the course of the wind, and the direction of the chase would be accordingly modified."

The points of the compass too were as necessary in the waste of the woods, as in that of the waters. The instrument for pointing

* Doddridge.

out the navigation of the forest, was the appearance of the bark and the moss on the trunks of the trees. "The bark of an aged tree is much thicker and much rougher on the north side."

"These were only part of the tactics of the hunter; he was constantly on the alert with all his experience and knowledge of the ground, not only to gain the wind of the game, but to approach it without being seen. If he succeeded in killing a deer, he skinned it, and hung it up out of reach of the wolves;" the hunter then might resume his sport, and follow it till evening, when he would repair to his camp, kindle a fire, and together with his fellow-hunter, if he had one, enjoy the fruit of his day's toil. Then after supper, the adventures of many a days' hunting, the spike buck, the two and three pronged, the doe and the barren doe," or the surly bear, the fierce buffaloe, or the leaping panther, (or painter, as is the pronunciation of the frontier,) or above all, the wild Indian, beguiled away the long evening, until the fatigues of the day wrapped the musers in an imperfect repose and wakeful sleep. After hunting for some time on the same ground, the hunter could, it is said, distinguish the different gangs of deer so as to know one flock from another. Often an old sagacious buck would, by his wary maneuvers, save his gang from the huntsman's skill; the parties seemed pitched against one another, at most unequal odds, however,—life on the one hand, against sport on the other. Occasionally it would happen, "as time and chance happen to all *animals*," that through a whole season a hunter would be foiled by some remarkable antagonist, and the antlered hero would still be left to lead his spotted descendants a little longer. If, however, the craft of the hunter brought down the pride of the woods, the victory was enjoyed with no small boast on his part, and triumph on that of his companions.

Thus the mimic war went on; but if the weather were unsuitable for hunting, then the skins and carcasses of the game were taken into the settlements, whenever sufficiently near, and disposed of.

It was pleasing to know that amidst the cares and dangers of the forest, *many* of the hunters would not hunt on Sundays. Some from the religious feelings of former years and other states of life, while others who entertained no particular veneration for the birth day of creation, used to say, "that whenever they hunted on Sundays, they were sure to have bad luck all the rest of the week.

Labors of the Frontier.—The labors of a hostile frontier, it

may well be conceived, were heavy; and yet painfully interrupted, so long as any apprehensions were entertained from the Indians. The greater part of the population were huddled together in forts or stations, as they were termed; they cultivated imperfectly some adjacent or distant fields. In these agricultural labors the rifle was used with the plough and the hoe; every man went afield with his military equipments; the arms were stacked in a central position ready to be used on the first alarm. A sentinel was stationed on the outside of the fence, when the work was going on, upon whose signal of alarm the whole company rushed to their arms, ready for mortal combat in a moment. Yet with these trying precautions and load of care upon their minds, in addition to the heavy labors of opening a farm in the country, where to use the expressive terms of the people, "there was'nt a stick amiss;" the people still preserved their cheerfulness and spirits. The crops of the pioneers were often wasted by the horses and cattle which were let into the fields through the gaps and fences made by the falling of the thick timber; their sheep and hogs were devoured by the wolves, panthers and the bears; their grain destroyed by whole troops of squirrels and raccoons. Many times, in the very height of the season, the husbandman was called off by his more imperious duties as a soldier, and the harvest of the spring's labor or the summer's ripening, was, in a great degree, lost.

Military Duties of the Frontier.—In these truly iron times every able bodied man was in truth by the necessity of his condition a soldier. Neither Arab nor Tartar, nor even our own native Indians, were more constantly on the look-out for the attacks of an enemy, than were the backwoodsmen of the West, at the times under description. Indeed, the most faithful idea that can be formed of our frontier countrymen, at this period, is that they were Indians in many respects more than their complexions. One most honorable exception to this remark, it would be cruel not to state, was their mercy to females and children in the prosecution of the relentless barbarity of war with savages. The men on the frontier of Virginia, Pennsylvania and Maryland, bordering on the Valley of the Ohio, were constantly under arms, from the early spring to the late fall of the year. The marches, as they would have been termed on the frontiers of Wales, England and Scotland, were studded over with military stations, such as have been de-

scribed. From these were issuing war parties against the Indians, almost as frequently as from the Indian towns against them.

In these expeditions, the analogy to Indian manners was again displayed; the hold of officers on their men was slight; that of popularity was most efficient. Officers might advise, but they could not command obedience; they might counsel, and those who approved of their advice, followed it, while those who did not, staid at home. Public odium was the only punishment for their laziness or their cowardise. This was, however, a severe penalty in a state of society in which public opinion was powerful, and sympathy with each other intense.

In a state of commercial selfishness, the close relations of a society connected together by common fears and dangers into one family, can scarcely be conceived. In conformity with this character of a society bound together by its social sympathies, independent of coercive law, it is said, "that the instances of disobedience in families and individuals to the advice of their officers were by no means numerous. The greater number submitted to their directions with a prompt and cheerful obedience."*

Any man who without a reasonable cause failed to go and scout on campaigns, when it came to his turn, met with an expression of indignation in the countenances of all his neighbors, and epithets of dishonor were fastened upon him without mercy. "Debts, which make such an uproar in civilized life, were but little known among our forefathers at the early settlement of the country. After the depreciation of the continental paper, they had no money of any kind; everything purchased was paid for in produce or labor. A good cow and calf were often the price of a bushel of alum salt. If a contract was not punctually fulfilled, the credit of the delinquent was at an end."† This is related more especially of the northwestern part of Virginia. The only salt used in the far West, as in Kentucky, was manufactured from the salt springs of the country, which were not very productive. This was, however, long anterior to the rich supplies of the copious works on the Kenhawa then buried in the mysteries of nature.

If a theft was detected in any of the frontier settlements, a summary mode of punishment was resorted to. "The first settlers so far as I knew of them, had a kind of innate or hereditary detesta-

* Idem.
† Idem.

tion of the crime of theft in every shape or degree; and their maxim was, a thief must be whipped. If the theft was of something of some value, a kind of jury of the neighborhoods, after hearing the testimony, would condemn the culprit to Moses' law: that is forty stripes save one. If the theft was of some small article, the offender was doomed to carry on his back the flag of the United States, which then consisted of thirteen stripes. In either case, some able hands were selected to execute the sentence; so that the stripes were sure to be well laid on. The punishment was followed by a sentence of exile; the offender was informed, he must decamp in a certain number of days, and be seen there no more, on penalty of having the number of stripes doubled. For many years, after the law was put in force, in the western part of Virginia, the magistrates themselves were in the habit of giving those who were brought before them on charges of small theft, the liberty of being sent to jail, or taking a whipping. The latter was generally taken, and was immediately inflicted, after which the thief was ordered to clear out. In some instances, stripes were inflicted not for the punishment of an offence, but for the purpose of extorting a confession from some suspected person. This was the torture of our early times, and no doubt sometimes very unjustly inflicted."*

With all their rudeness, these people were given to hospitality, and freely divided their rough fare with a neighbor or a stranger; and would have been offended at the offer of pay. In their settlements and forts, they lived, they worked, they fought and feasted, or suffered together in cordial harmony. They were warm and constant in their friendships. On the other hand, they were revengeful in their resentments, and the points of honor sometimes led to personal combats. If one man called another a liar, he was considered as having given a challenge, which the person who received it must accept, or be deemed a coward; and the charge was generally answered on the spot with a blow. If the injured person was decidedly unable to fight the aggressor, he might get a friend to do it for him. The same took place on the charge of cowardice or any other dishonorable action; a battle must follow, and the person who made the charge must fight either the person against whom he made the charge, or any champion who chose to espouse his cause.

* Idem.

Thus circumstanced, our people in early times were much more cautious of speaking evil of their neighbors, than they are at present. Sometimes pitched battles occurred, in which time, place and seconds were appointed beforehand. I remember having seen one of these pitched battles in my father's fort, when a boy. One of the young men knew very well beforehand that he should get the worst of the battle, and no doubt repented the engagement to fight; but there was no getting over it. The point of honor demanded the risk of the battle. He got his whipping. The combatants then shook hands, and were good friends afterwards. The mode of single combat in these days was dangerous in the extreme; altho' no weapons were used, fists, teeth and feet were employed at will; but above all, the detestable practice of gouging, by which eyes were put out, rendered this mode of fighting frightful."*

"I do not recollect that profane language was much more prevalent in our early times than at present. Among the people with whom I was most conversant, there was no other vestige of the Christian religion than a faint observation of Sunday; and that merely as a day of rest for the aged, and a play day for the young."†

Mechanic Arts.—From the hunting and labors of a frontier life, the transition to an account of its mechanical aids is not abrupt. These were necessarily few and crude; yet prompted by necessity, the people achieved with their primitive and rude tools works of mechanical skill, far beyond what a person enjoying all the advantages of civilization could expect from a population placed in such destitute circumstances.‡ "No man could afford in a state of society so sparse and dangerous, to rely upon any one trade or manufacture. Peace and population are indispensable to generate the variety and extent of social tastes, which lead to separate trades and the consequent perfection of the arts." In the young West every family was under the necessity of doing everything for themselves as well as they could.

The hominy block and the hand mill were in use in most of our houses. The first was made of a large block of wood about three feet long, with an excavation burned in one end, wide at the top, and narrow at the bottom, so that the action of the pestle on the

* Idem.

† Idem.

‡ Idem.

bottom threw the corn up to the sides towards the top from whence it continually fell down to the centre. In consequence of this action, the grain was pretty equally subjected to the action of the pestle. In the fall of the year, while the Indian corn was soft, the block and pestle did pretty well for making meal for journey, or Johnny cake or mush; but when it became hard, it was rather slow. The sweep was sometimes used to lessen the toil of pounding the grain into meal. This was a contrivance similar to one used for elevating water from a well by the weight of a heavy beam, supported by a pivot." A machine still simpler than the mortar and pestle, was used for making meal, while the corn was too soft to be beaten. "It was called a grater; this was a half-circular piece of tin perforated with a punch from the concave side, and nailed by its edges to a block of wood. The ears of corn were rubbed on the rough edges of the holes, while the meal fell through them in the board or block to which it was nailed; and when being in a slanting direction, it discharged the meal into a cloth or bowl placed for its reception."

"The horse mill was better than the mortar and grater. It was made of two circular stones, the lowest of which was called the bed stone, the upper one the runner. These were placed in a hoop, with a spout for discharging the meal. A staff was let into a hole in the upper surface of the runner near the outer edge, and its upper end through a hole in a board fastened to a joist above, so that two persons could be employed in turning the mill at the same time. This was done by pulling at the upright staff, by a cross piece at right angles, which as it moved in its upper socket, drew the running stone along with it, and ground the grain." "Our first mills were of the description denominated tub mills.

"Instead of bolting cloths, sifters were in general use. These were made of deerskins in the state of parchment, stretched over a hoop and perforated with a hot wire.

Our clothing was all of domestic manufacture. We had no other resource for clothing, and this indeed was a poor one. The crops of flax often failed, and the sheep were destroyed by the wolves. Linsey, which is made of flax and wool, the former the chain, and the latter the filling, was the warmest and most substantial cloth we could make. Almost every house contained a loom, and almost every woman was a weaver.

Every family tanned its own leather. The tan vat was a large trough sunk to its upper edge in the ground; a quantity of bark was easily obtained every spring in clearing and fencing land. This, after drying, was pounded on a block of wood with an axe or a mallet. Ashes were used in place of lime for taking off the hair. Bear's oil, hog's lard and tallow answered the place of fish oil. The leather was coarse, but it was substantially good."

"The operation of currying was performed with a drawing knife, with its edge turned after the manner of a currying knife. The blacking of the leather was made of soot and hog's lard. Almost every family contained its own tailors and shoemakers. Those who could not make shoes, could make shoe packs. These, like moccassons, were made of a single piece of leather, with the exception of a tongue piece at the top of the foot. This was about two inches broad and circular at the lower end. To this the main piece of leather was sewed with a gathering stitch, the seam behind was like that of a moccasson. To the shoe pack, a sole was sometimes added. The women did the tailor work. They could all cut and make hunting shirts, leggins and drawers."

"With the few tools the pioneers brought with them into the country, they certainly performed wonders. Their plows, harrows with their wooden teeth, were in many instances well made. Their cooper ware, which comprehended everything for holding milk and water, was generally pretty well executed. The cedar ware, by having alternately a white and red stave, was then thought beautiful; many of their puncheon floors were very neat, their joints close and the top smooth and even."

"Their looms, although heavy, did very well. Those who could not exercise these mechanic arts, were under the necessity of giving labor or barter in exchange for the use of them, so far as their necessities required. An old man in my father's neighborhood had the art of turning bowls from the knots of trees, particularly those of the ash. In what way he did it, I do not know; or whether there was much mystery in his art. Be that as it may, the old man's skill was in great request, as turned wooden bowls were amongst our first rate articles of household furniture. My brothers and myself once undertook to procure a fine suit of the bowls made of the best wood, the ash. We gathered all we could find on our father's land, and took them to the artist, who was to give, as the saying was, one half for the other. He put the knots in a branch

(of water,) before his door. A freshet came and swept them all away. Not one of them was ever found. This was a dreadful misfortune. Our anticipations of our elegant display of new bowls was utterly blasted in a moment, as the poor old man was not able to repair our loss or any part of it."

As an illustration of expertness at various occupations, Dr. Doddridge relates the following account which may be acceptable as an individual example of the times superior to the most ample representation in vague generality. "My father possessed a mechanical genius of the highest order; and necessity, which is the mother of invention, occasioned the full exercise of his talents. His farming utensils were the best in the neighborhood. After making his loom, he often used it as a weaver. All the shoes belonging to the family were made by himself. He always spun his own shoe thread, saying that no woman could spin shoe thread as well as himself. I have seen him make a small, neat kind of wooden ware, called set work, in which the staves were all attached to the bottom of the vessel by means of a groove cut in them by a strong clasp-knife and a small chisel. He was sufficiently carpenter to build the best kind of houses then in use; that is to say, first a cabin, and afterwards the hewed log houses with a shingled roof. In his latter years, he became sickly, and not being able to labor, amused himself with tolerably good imitations of cabinet work. Not possessing sufficient health for service on the scouts and campaigns, his duty was that of repairing the rifles of his neighbors when they needed it. In this business he manifested a high degree of ingenuity. A small depression on the surface of a stump or log and a wooden mallet were his instruments for strenghtening the gun barrel when crooked. Without the aid of a bow string, he could discover the smallest bend in a barrel. With a bit of steel he could make a saw for deepening the furrow (the curved groove of the rifle,) when requisite. A few shots determined whether the gun could be trusted."

"Young as I was, I was possessed of an art which was of great use; it was that of weaving shot pouch straps, belts and garters. I could make my loom and weave a belt in less than a day. Having a piece of board about four feet long, an inch auger, spike gimblet, and a drawing knife, I needed no other tools for making my loom.

It frequently happened that my weaving proved serviceable to the family, as I have often sold a belt for a day's work, or making a hundred rails. So that altho' a boy I could exchange my labor for that of a full grown person for an equal length of time."*

(To be continued.)

Article III.

(From the American Agriculturist.

Popular Fallacies.— Morning Walks, Weather, &c.

Hall's Journal of Health, a monthly periodical, published in this city, at one dollar a year, contains more practical common-sense articles, written in a plain popular style, than any similar work we are acquainted with. It aims at uprooting popular fallacies in regard to health, by applying to them common-sense reasonings, adapted to the popular mind. We have just *read through* the April number, and, had we space, would copy the whole for the benefit of our readers, whom we advise to become subscribers to that journal. Though somewhat long, we will insert the first article, with the endorsement that it is not only compatible with reason, but it agrees entirely with our own *experience* and observation. A morning walk or much exercise before bracing up the system with a meal, has always unfitted us for strong mental exercise for that day. We have felt this more sensibly when, as often happens, we have been detained upon the water by the late arrival of a night steamer. The coolness of the water is peculiarly fitted to condense near its surface the malaria and noxious vapors from the higher æriel regions. But read what the 'Journal of Health' says:

"It is a great mistake, that a morning walk or other form of exercise before breakfast is healthful; the malaria which rests on the earth about sunrise in summer, when taken into the lungs and stomach, which are equally debilitated with other portions of the body from the long fast since supper, is very readily absorbed and enters the circulation within an hour or two, poisoning the blood, and laying the foundation for troublesome diseases; while in winter the same debilitated condition of these vital organs readily allows the blood to be chilled, and thus renders the system susceptible of taking cold, with all its varied and too often disastrous results.

* Idem.

I do not wish to dismiss the statement which I have made with a simple assertion. The denial of what is almost universally considered a truth so palpable, as scarcely to admit of proof, may well challenge investigation. Besides, I do not want the reguiar readers of the Journal to have their memories crowded with abstract precepts and pithy saws about health; I desire them, on the contrary, to become masters of general principles, to know and to understand the reason of things; then, these things can be remembered without an effort, while the principle being known, a very varied application is easily made and practically observed, a striking example of which is given in the March number, in reference to the prompt cure of poisons and bites and stings of insects and reptiles by the employment of familiar articles of kitchen use.

What I shall say on the subject of morning exercise is intended to apply mainly to all sedenatry persons, those whose employment is chiefly in-doors. And here I will simply appeal to the actual experience of any sedentary reader if he has not before now noticed when he has been induced from some extraordinary reason to take active exercise before breakfast on some bright summer morning, that he felt rather a less relish for his food than usual; in fact had no appetite at all; there was a certain sickishness of feeling, with a sensation of debility by no means agreeable. It will be said here, this was because it was unusual, that if followed up these feelings would gradually disappear. If that is so, it is but a negative proof, for the system naturally has an inherent resisting power called into action by hurtful appliances. A teaspoon of brandy will produce slight symptoms of lightness of head in some persons if taken before breakfast, but if continued, the same amount will, after a while, produce no appreciable discomfort; the cases are precisely parallel; that a man gets used to drinking brandy is no proof that it does not injure him.

Another person will remind me that the early air of a summer's morning seems so balmy and refreshing, so cool and delightful, that it can not be otherwise than healthful. That is begging the question, it is a statement known by scientific observers to be not simply untrue, but to be absolutely false. It is a common observation in New Orleans, where I lived a number of years, by those who remain in the city during the raging of yellow fever, that when the air of mornings and evenings appears to be unusually delicious, so clear and cool and refreshing, it is a forerunner of an increase of the epidemic. Like the deceitful Syren, it destroys while it lures.

The fruitful cause of fevers and other epidemics in southern climes is the decomposition of vegetable matter; the ranker and more dense the vegetation, the more deadly are the diseases of that locality; this decomposition can not take place without moisture and heat approaching ninety degrees of Fahrenheit. We are all familiar with the sad fact, that thousands upon thousands who

have endured the hardships of mining in California have taken the "*Isthmus fever*" on their return, and lingered and died. From the first discovery of gold in the Sacramento valley the newspaper press was united in its cautions against the almost certain death attendant on sleeping at Chagres a single night, and even now it is considered one of the most important effects of the railroad *finished across the isthmus*, that passengers do not land at all at Aspinwall, but get into the cars at once and cross to Panama, where a *steamer is always in waiting* to receive passengers for San Francisco, thus avoiding a night on the Isthmus. Before the removal of the landing from Chagres to Aspinwall, it became common to make arrangements to remain on board the steamers until the passengers were ready to start immediately for Panama. All these precautions forced themselves on public attention. Now why was all this? Simply to avoid breathing the concentrated malaria arising from such immeasurable quantities of decaying vegetation shooting out of swamps and stagnant marshes, and so dense as to make penetration by man or beast impracticable.

The night was more dreaded than the day, for the following reason: The great heat of the sun caused a rapid evaporation of the malaria, rarifying it to such a degree that it almost instantaneously ascended to the upper atmosphere after the first morning hours; but in the course of the day, when the sun declines in power, these vapors gradually condense, get heavier, and fall to the earth, thus giving the layer of air within fifteen feet of the surface, a density and concentration of malaria malignantly fatal; while in the morning this density is not diminished until the sun has gained some power.

The older citizens of Charleston will tell you, that in early years, it was certain death for a stranger to sleep in the city one night, that during the most violent ragings of epidemics, citizens themselves would not go to town to attend to necessary business, except at noon-day, the hottest portion of the twenty-four hours, because, then the malaria was most rarified and found by observation to be least hurtful. Few know the reason, but the fact was so palpable, that its propriety enforced practical attention.

In the old books which treat of the terrible plagues which depopulated the large cities in the middle and earlier ages, the people who could not leave town, retreated to the upper stories of their dwellings, and would not come down to purchase necessary marketing from the country people, but would let down baskets by ropes, and draw up their provisions, and thus escaped with impunity, to a considerable extent; these were the practical results which followed the observation of actual facts, by a comparatively rude and unthinking age, and we unfortunates of the nineteenth century, who cannot leave the city in summer, but must have our noses always at the grindstone, whose mills stop when absent for a single day; we doctors, who never have a leisure day or night, or hour,

who always have a greater or less number who are looking up to the hour of our anticipated visit as the happiest of the whole twenty-four; and we poorer Editors, who could not go if we would, otherwise our children would go supperless to bed: I say, we all may gather a practical lesson of great value from the customs of those of a far ruder age, a lesson which if learned well, and acted on, would save to us many a darling child, many a life's only hope, many a poor heart's only comfort—thus

Never allow your children to leave the second or third story in the morning until they have had a plain hearty breakfast; and send them up stairs within half-an-hour after sun-down, or give them their supper at sun-down: these observances ought to be adhered to from May until October in the North, and from April to November in the South. A rigid attention to this, would prevent at once, half the diarrheas and summer complaints, and croups which desolate our hearths and hearts so often in summer time in the city.

It is a striking argument for the perversity of human nature, and one which often forces itself upon the attention of observant men, that we bolt a concentrated untruth without wincing, while what is true, with all its simplicity and beauty, and usefulness; is disputed inch by inch, with a suspiciousness and a pertinacy most remarkable.

So it will be, I have no doubt, with the sentiment I have advanced; instead of being received, and acted upon, many a mind will be busied in finding an argument against it, instead of considering the force of the proof offered for it, just as we all many times have observed when ordinary minds are engaged in an argument, it will occur in perhaps nine cases out of ten, that the listener's whole attention is occupied in casting about for an objection or new proof, instead of weighing the argument of the speaker; consequently, at the end of the dispute, neither party is a whit the wiser, but rather more confirmed in his previous opinion, from the fact that no argument or proof to the contrary was allowed a hearing. I will just step aside a moment here to make a useful suggestion, for being "*free born*," and in a remarkably "*free country*," so said at least; so free indeed, that if you differ from anybody else upon any subject, or fail to walk in the exact track of your predecessors, or do or say anything different to Mr. Everybody, you are considered a ninny, or a mule; being as I have just said, a citizen of this remarkably free and tolerant country, why should I be bound to stick to the literal text for six or eight pages; persons meandering along the cow paths in the woods, like to step aside occasionally and pick an inviting flower, which otherwise would have wasted its sweetness on snakes, lizards and spiders; so I step aside from my consideration of disease and malaria, and cull a flower for my reader, relative to argumentation. It is such an important truth, so easily practised, would save so many

hard words, and harder thoughts, so many wounded feelings, so much love's labor lost, and by the way accomplish so much good, that I think it is worth the whole year's subscription price to the Journal—it is this:

If you want to convince anybody of anything, argue alone.

Having delivered ourselves of this great and useful apothegm, we will resume the thread of the argument, taking it for granted that the reader has not forgot the subject matter of discussion, it being so imaginatively beautiful—*a summer morning's walk.* It sounds charmingly, it brings with its mere mention, recollections so mournfully pleasing, or associations so delightful, that we long for the realization, at least until "sun-up" to-morrow, then what a change! we would not give one half-awake good stretch, one five minutes' second nap, for all the summer morning walks of a whole year. Who does not feel that the *vis inertia* of the first waking moments of a May morning. is worth more than a dozen rambles before breakfast. I am for the largest liberty of enjoyment; I am not among the multitude of weak-minded folk, the negative sort of minds, to discard what is good to eat or drink, or enjoy, for no other reason, that I can perceive, than that it is good, and a cross is meritorious. One man says tea is injurious; another Soloman avers that coffee makes people bilious, a third, and he a Broadway author too, has written a whole book to prove that if we eat wheat bread, it will make our bones brittle, and that if we live to get old at all, the first time we fall, w'll break all to pieces like a clay pipe-stem. Verily this is a free country, for if everybody is to be believed, we are free to eat nothing at all. So I do not advise a denial of that most deliciously enjoyable entity, a summer morning's nap, because it is for the reasons I have just named, more healthful than the so lauded "*exercise before breakfast;*" if you must remain in bed until breakfast, or be out in the open air an hour or two before breakfast, on an empty stomach, then I say, as far as health is concerned, the nap is better than the exercise, for the incontrovertible reasons I have already given.

It requires no argument to prove the impurity of a city atmosphere about sunrise and sunset, reeking, as it must, with the odors of thousands of kitchens and cesspools, to say nothing of the innumerable piles of garbage which the improvident poor allow to accumulate in front of their dwellings, in their back yards and their cellars; any citizen may satisfy himself as to the existence of noisome fumes by a summer evening's walk along any of our by-streets; and although the air is cooler in the mornings, yet the more hurtful of these malaria saturate it, but of such a subtile nature are they, that no microscopic observation, no chemical analysis, has as yet been able to detect, in an atmosphere thus impregnated, any substance or subsistence to which these deadly influences might be traced, so subtile is the poison, so impalpable its

nature; but invisible, untraceable as it may be, its influence is certain and immediate, its effects deadly.

Some will say, look how healthy the farmer's boy is, and the daily laborers, who go to their work from one year's end to another by "crack of dawn!" My reply is, if they are healthy, they are so in spite of these exposures; their simple fare, their regular lives, and their out-door industry, give their bodies a tone, a vigor, a capability of resisting disease, which nullifies the action of malaria to a very considerable extent. Besides, women live as long as men, and it cannot be said that they generally exercise out of doors before breakfast.

Our Knickerbocker ancestry! the very mention of them suggests —fat! a double fatness in fact—fat as to body and fat as to purse; if you catch hold of one of them, instead of getting a little pinch of thin skin, as you would from a lean Yankee, you clutch whole rolls of fat, solid fat—what substantial people the real, identical, original old Knicks are! how long they live too! expectant sons-in-law echo, sighingly, "*how long!*" in fact, I do not recollect of their dying at all, at least as we do; they simply ooze out, or sleep away. May we not inquire if there is not at least some connection between their health as a class, and the very general habit of the sons here, derived from their sires in fatherland, of eating breakfast by candle-light? Another very significant fact in point is, that the French in the south are longer lived, and suffer far less from the fevers of the country than their American neighbors; in truth, their exemption is proverbial; and as a class they have their coffee and boiled milk, half and half, with sugar, brought to their bedsides every morning, or take it before they leave the house.

It is not an uncommon thing for persons to go west to select a new home for their rising families, never to return: "*look sick and died;*" this is the sad and comprehensive statement of the widowed and the fatherless, owing doubtless, in many instances, to their traveling on horseback early in the morning and late in the evening, in order to avoid the heat of the day.

Many a traveller will save his life by taking a warm and hearty breakfast before starting in the morning, and by putting up for the night not later than sundown.

It is of considerable practical importance to answer the question, why more persons have died in "the States" from Isthmus fever than in California? Simply, because on their way out, their bodies are comparatively vigorous, and there is in addition a degree of mental and moral excitement, which repels disease; but on the return, it is strikingly different; the body is wasted by hardship and privation, while the spirit is broken by disappointment, or the mind falls into a species of exhaustion, when successful, from the long and anxious strife for gold: both causes operating, one to weaken the body, the other to take away all mental elasticity, it is no wonder that the whole man becomes an easy prey to disease.

In subsequent numbers I may discuss other "POPULAR FALLACIES" in reference to the all important subject of health. A whole number could be easily filled with them; but it was not my intention to tell too much at once, it would not be remembered; and then again, Wifey has several times given a gentle but a very decided admonition, "*Thy Journal reads very well, William, but I am afraid thee will give out.*" I have, however, a ready quietus to these groundless apprehensions, in a basket under my table, well filled with scraps, each of which affords matter for a leading editorial. The truth is, when I think it all over, the world has so many things to learn and unlearn, I am afraid I will get gray—what a delightful Tense that is—before I can set it right at all points, my ideas of right, and propriety, and truth, being considered the standard! What a vain creature is poor know-nothing man! how little indeed does the wisest of us rightly and truly know!

ARTICLE IV.

The Commerce of the Black Sea:*

CONSIDERED WITH REGARD TO ITS BEARING ON THE EASTERN QUESTION.

Russia proposes to restore to the Black Sea the high commercial importance which it enjoyed in antiquity, causing the reflux of the precious merchandise, both of Asia and Central and Eastern Europe. In order to realize this grand project, she has for one hundred and fifty years sought occasions to make war upon the Ottoman Empire. She now undertakes to drive the Turks out of Europe, to seize Constantinople, to subject Persia, and to extend her dominions to the frontiers of India and China.

To have a clear idea of the Eastern question, it is necessary to take a view of past ages, and study the history of the commerce of the Black Sea from remote times to the present day; retrace its vicissitudes; the influence it has exerted on the destiny of nations; the course it has taken, and the relations it has created between the nations of the extreme Eastern and Western world.

At an early period the commerce of the Black Sea attracted navigators, who visited it to explore its resources. The initiative is attributed to the Phœnicians, who, two thousand years previous to the Christian Era, possessed a flourisoing marine. Homer describes them to us as visiting all the coast of Greece and Asia Minor in the twelfth century. Antique legends attribute to them the establishment of numerous colonies in the Islands at the enterance of the Dardanelles. It is also well known that the Phœnicians were a commercial people.

Translated from the French for the *Merchants' Magazine*, by an American Lady, of Paris.

Historians attribute to them the foundation of several cities on the southern side of the Black sea. Indeed, Ezekield speaks of them as bringing their slaves from Georgia, their horses, mules, and mercenary soldiers from Armenia, at an epoch six centuries anterior to Christ. In the anti-historical times, the Cretans, who had a powerful marine, extended their Commerce to the Black Sea; also the Pelasgians, who founded the opulent city of Troy, almost at the entrance of the Dardanelles. There was another people in those remote times who were also worthy of notice. They were the Colchians. The establishment at the foot of the Caucasus, the cradle of the white race, of a black or rather mulatto color, who were able to perpetuate and maintain themselves in the conquered country as late as the third or fourth century of the Christian Era, is an eminently curious fact. What revolution, what necessity, or what interest could have transported the Colchians to the boarders of the Phasis? All the writers of antiquity believed them to be a detachment of the army with which Sesostris invaded Upper Asia. The Colchians declared themselves to be of Egyptian origin, to Herodotus.

This fact admitted, it would seem that Sesostris left his body of troops in the Caucassus for a military object. It is, however, probable that he was influenced by commercial considerations, for he had sent previously a fleet of three hundred vessels into the Red Sea, and had conquered all the coasts of Asia and India. Such an expedition could have no other than a commercial object. It is therefore probable that he left this detachment of troops with a view to intercept the commerce of Upper Asia by the Black Sea, and force it to pass by caravans through Egypt, where he sought at the same time to attract that of Southern Asia. This supposition becomes probable when we reflect upon the deadly struggles which took place afterwards between the Pharahos and the kings of Babylon and Nineveh, who endeavored to prevent the commerce of India from reaching Egypt through the Red Sea.

The Colchians became independent, and so rich by their commerce, that their kings, according to Pliny, had their apartments lined with gold, and their ceilings supported by pillars of silver. It is certain that an active commerce existed between India and the Black Sea from the most remote antiquity.

An emigrant people always love to surround themselves with the souvenirs of their fatherland. We always see them giving to the rivers and mountains of the country in which they establish themselves, the names of those in the country where they have left the tombs of their fathers. Geographical names are an indestructible indication by which, when historical facts are wanting, we can trace the origin of a people and their relations. Thus, we find in the ancient geography of Colchidia and the neighboring country, names which take us immediately to India, and especially to Penjab. That is a proof that commercial relations existed between India and the Black Sea. In the thirteenth century before Jesus Christ, the Greeks began to navigate the seas bordering upon their country. Piracy is one of the characteristics of the heroic ages. Ulysses, in the Odyssey, boasts of skimming the Ægean Sea.

Colchidia, so flourishing at a time when Greece was still barba-

rous, naturally excited the cupidity of those petty chiefs who called themselves the descendants of the gods. Not daring to trust themselves in their fragile vessels, to make a long voyage, they were content to pillage small Phœnician and Cretan vessels, which came from the mouth of the Phasis. But in time they gained courage; and passing the Hellespont, penetrated the Dardanelles and the Black Sea, casting an eager glance over the space which still separated them from Colchidia, which they desired not to conquer, but to pillage. The history of the Argonauts, and of their numerous descents upon the Astic shores, presents us with a series of *coups de main*, and of expeditions which finally resulted in the accomplishment of what they had so long desired—a landing upon the shores of the Phasis, followed by the pillage of isolated establishments.

The episode of Meda shows the high state of civilization which Colchidia enjoyed at that time. The enthusiasm with which the Argonauts was received in Greece, proves that it responded to a national want of expansion, the necessity of a new horizon. The Black Sea was open to them, but the navigation was not entirely free so long as the power of Troy was not humbled. The Greeks formed a coalition against Priam, and Illium fell after a siege of ten years, or rather a long series of unsuccessful attempts constantly renewed.

From this date the Greeks carried on the commerce of the Black Sea, which daily grew in consequence. About the year 1040, Ionian and Pelasgian emigrants established themselves on the Mediterranean shores of Asia Minor, and took possession of Miletus. In imitation of the example of the Carians, their descendants followed commerce so successfully that, between the years 700 and 500, they became, after Tyre and Carthage, the most commercial people in the world. The Phocians and Migarians also took an active part in the great commercial movement, and founded colonies in the Black Sea.

The Milesians always preserved an immense superiority over the others, and acted the part of protectors to the Greeks of the Euxine, who were often exposed to the attacks of the barbarians. The Black Sea had already changed its name, and was called by the Hellenites the "Hospitable Sea." The Greeks built fortified commercial establishments at the mouths of all the rivers. The Milesians penetrated as far as the Sea of Azoff, where they built Tanais—the celebrated Tanais of the Egyptians—a situation of great commercial importance, now occupied by the city of Azoff. By the Danube, the Pruth, the Dneister, the Bog, and the Dneiper, the Greeks received wool, the skins of annimals, and furs. The Crimea and Kouban furnished them with abundance of wheat. They took large quantities of fish from the Sea of Azoff. The country situated between the Crimmerian Bosphorus and the Caucasus, furnished them with salt. The Paphlagonians organized the hunting of men, and furnished them with thousands of slaves. We must add the Oriental productions, which were of great importance to the branches of commerce already mentioned. The Greeks made great efforts to facilitate and increase Oriental commerce. It was evidently for this object that they founded in the mountainous countries, which separated Colchis from the Caspian Sea, and even on the borders of that sea, the numerous cities of Greek origin, whose existence is testified by ancient geogaphers,

and which were probably at first only fortified posts. Such, among others, was the immense citadel of Sarapan, where the caravans stopped after four days' march, carrying the precious merchandise which arrived by the Caspian to Cyrus. These establishments dated from a most remote period. They have been attributed to the Argonauts, who were also said to have joined the Syros and the Araxes to the Caspian, for at first these two rivers, arrested in their course by a mountain, formed a great lake, without any communication with the sea. It appears doubtful, whether a work of such magnitude could have been only executed by the princes of the country, interested in aiding the commerce which enriched them.

From the time of the Phœnicians silks came to Europe by the Black Sea. This assertion might appear uncertain at first, but it rests upon positive proof, for the inhabitants of the Isle of Cos had manufactures of silk from the time of Aristotle, four centuries before Jesus Christ! The Milesians, after having made themseives masters of the most important points of the "Point Euxin," saw clearly that their commerce would become both more stable and more active, if they could gain a political importance in the country. There were already numerous colonies grouped about the Bosphorus, forming a compact population, which, becoming prosperous, ruled over a part of the Crimea and beyond the Bosphorus. The Milesians, placing themselves at the head of a revolt against the Persians, being illy seconded, had their fleet destroyed, and lost their city. The inhabitants put to the sword, except a small number who were transported to the Persian Gulf. The disaster was a fatal blow to the commerce of the Black Sea: Afterwards the country was governed by kings, who neglecting commerce, developed in a remarkable degree its agricultural resources. While the kingdom of the Bosphorus flourished under the Leuconidas princes, the city of the Chersonesus, founded by the Heraclides, ruled the other extremity of the Crimea, and enjoyed a great prosyerity. Divisions arising in the interior of these States, they became enfeebled, and their king, consulting the interests of his people, abdicated in favor of Mitharadates Eupator. At the same time, the other Greek establishments, situated on the eastern and northern shores of the Black Sea, suffered from continual attacks made by the barbarians. From the year 334 to the year 332 before our era, the whole face of the world was changed by the audacity of a young man, who died before the completion of his thirty-third year. Alexander, with a handful of soldiers, conquered Asia Minor, Phœnicia, Judea, Egypt, Persia, and a part of India.

There have been many suppositions as to the object which the Macedonian hero had in view. We shall only consider it in a commercial light. The foundation of Alexandria is a fact which does not call for a commentary. Alexander opened to Europe the commerce of the Indian seas and of Eastern Africa by a road which, if it was at the present day free and perfected as it ought to be, would cause the way by the Cape of Good Hope to be entirely abandoned. The foundation of Alexandria, although it did not ruin the commerce of the Black Sea, was prejudicial to it. The natural route of the productions of Western China, of Upper India, of Turkistan, was incontestably by the Aral, the Caspian, and Black Seas. But the ac-

tivity of the relations established between Alexandria and Red Sea caused a diversion of the commerce of the Black Sea, and this diversion was also favored by the great rivers which traverse India from north to south. Alexander had perfectly appreciated the importance of each of these great arteries of the commerce of the East, and not to sacrifice that of the North to the South, he built the cities to the east and south of the Caspian, destined to increase the communication of the southern countries of India with the Black Sea. Seleucus, who after him ruled over the "Pont Euxin," or Black Sea, and Upper Asia, like his master, comprehended all the importance of this commerce. It was this that determined him to undertake the conquest of India. He had already taken from Sandrocottus several provinces in the kingdom of Magador, when the ambitious projects of Demetrius and of Antigonus recalled him to Western Asia; he hastened to conclude a treaty with Sandrocottus, favorable to his plans of commerce, and sent soon after two ambassadors to the capitol of this prince, one of which was the celebrated historian Megasthenes.

This measure seems to have produced advantageous results, for Seleucus continued to take measures for the success of the commerce of the Black Sea. With this view he gave orders to the navigator Patrocles to explore the Caspian Sea, and at the time he was assassinated (227) he was taking measures to join the Caspian and Black Sea by means of a canal, which was to cross the Isthmus and unite the Kouban, which flowed into the Black Sea, with Kouma, a tributary of the Caspian. This canal must have crossed the country where learned men have since found so many traces of the ancient comunication between the two seas.

The immediate cuccessors of Seleucus did not prove themselves altogether worthy of their magnificent inheritance. Nevertheless, the commerce of the East with the Black Sea seems to have inspired Antiochus Soter, son of Seleucus, with the idea of founding the city of Antioch near the Oxus, on the route of the caravans of Bactres. It is also probable that his son, Antiochus Theos, was in some measure influenced by the recollection of the part the Milesians had acted in the Black Sea, and wished to attract them there again, when he delivered Miletus from the tyranny of Timarchus, and granted that city a special protection. Two great events which were accomplished under the reign of this prince, exercised a powerful influence upon the commerce of the Black Sea, These were the revolt of Arsaces, which detached from Syria a part of Meda, the country of the Parthes and Hyrcanie, and the foundation of the kingdom of Bactriana by Theodotus.

The riches of the last province, which counted, it is said, a thousand cities or strong places, attest the activity of the commerce of the East land. Theodotus endeavored to render this commerce still more flourishing by conquering the country of India near Bactriana. The alliance of his son and successor, Theodotus II., with Arsaces, who ruled over the shores of the Caspian, facilitated the market of the precious merchandise of India. Even China must have contributed considerably to this commerce, for Theodotus seems even to have extended his States to the frontiers of that great empire—to the city of Sera, the emporium of the commerce of silk.

Euthydemus had usurped the crown of Bactriana, when Antiochus, surnamed the Great, the worthy inheritor of the projects and genius of Seleucus, undertook to recover the dominion of the provinces which had detached themselves from the Syrian Empire. The Parthians were the first whom he attacked. They resisted with so much courage that he thought it prudent to acknowledge their independence. He then marched against Euthydemus, who, after a long time spent in hostilities, made him understand that it was for his interest to allow an independent Greek kingdom to rise up at the extremity of his States, as a barrier to the invasion of the Scythæ. It appears, according to Justinian, that there existed at the same time several small Greek States in India. These facts show how active and important must have been the commercial relations between India and the Black Sea, the highway of Greece, at a period when the Macedonian kings of Syriae were masters of the intermediate country.

Bactriana was governed by Eucratidas II., 147 years before Christ. This State, after having resisted under a preceding reign a formidable Indian invasion, at the very moment it appeared to have consolidated its powers, disappeared suddenly under a deluge of Tartars driven from the frontiers of China. Thus the communication between India, China, and the Black Sea, was momentarily intercepted. Great events were preparing in Western Asia, where the power of Seleucus had steadily declined from the time of Antiochus the Great. Mithridates claimed the empire of Asia, made preparations to attack the Roman Colossus, which weighed down Western Asia. In 187 he found himself master of the provinces bordering on the Black Sea, on the north and east, from Heraclea, in Bythnia, to the Dneiper.

The commerce of this sea had put him in possession of immense riches. He had a fleet of 400 vessels, and to the forces already under his command he joined those of Tigranes, king of Armenia. Rome sent against him successively, Sylla, Lucullus, and Pompey. Mithridates fell and the Black Sea became a Roman lake. Pompey was overwhelemed with astonishment at the riches of Mithridates and Tigranes. Fully understanding the quantity of gold, precious stones, luxurious manufactures, and rare productions of all sorts were the fruit of the commerce of the East, he took measures to facilitate its entranee into the Black Sea. He studied carefully the physical resources of the countries situated between Colchida and India. He was assured that it would require only seven days to transport the merchandize of India into Bactriana on the river Icarus, which empties into the Oxus; thus it would reach the Caspian by water, and bring it from there to the Black Sea. Pompey judging the route already mentioned, of ascending the Syros to Sarapanis and Phasis, to be the most advantageous, resolved to make it more practicable and more convenient.

This enterprise promised to be doubly useful, for at the time that it facilitated the arrival of the productions of the East, so much sought after in Europe, it would also be prejudicial to the commerce of Egypt, and hasten the moment when Rome should change the character of protectress of the Ptolemies for that of ruler of the valley of the Nile. The project of Pompey was not put into execution. Rome entered into the period of civil wars, and at the close Egypt belonged to her.

Augustus, master of the world, divided the empire with the people and the Senate, reserving Egypt for himself, which he made a part of his private domain, and gave it a special organization. The emperor himself appointed the governor, who could neither be a Senator nor an important political personage. Egypt remained an imperial rather than a Roman province, with few modifications, until Constantine.

Augustus, reserving to himself this privilege, secured the possession of all the breadstuffs of this country, famed for its fertility, besides the monopoly of the commerce of India, of Arabia, and of Ethiophia. Succeeding emperors made every possible effort to develop its commerce, and soon the Red Sea was navigated in every direction by the imperial fleet. Thalon himself saw, under the reign even of Augustus, a fleet of 120 vessels leave Alexandria to ascend the Nile, and enter the Red sea by a canal. Unfortunately, the Emperors, masters of this commerce, weighed it down by exorbitant duties.

This of course had the effect, in a comparatively short time, of restoring the commerce of the East by the Black Sea to its former prosperity. Roman merchants imported into Colchidia the products of Upper India, China, Bactrinia, and Persia. Silk was the principal object of this commerce. In connection with this article of luxury, the West received also cotton, ebony, incense, rich stuffs, precious stones, and dye-stuffs. Pliny says, the merchants gained 100 per cent on these Asiatic productions.

The traffic in silk especially must have been very advantageous, as it was almost a monopoly, only a few packages coming occasionally by Alexandria. The Romans also received by the same route the iron of Siberia, which was considered superior to that of all other countries, and was used in the fabrication of all articles in iron where it was necessary to insure duration and solidity. The Issidonians also dealt in furs, which were much esteemed in the empire. It is probable they were brought from those vast countries now known under the name of Siberia, and was called by the ancients "the country of the Hyperboreans." The markets of Colchidia also abounded in gold, silver, the skins of Angora goats, and medical plants. The countries bordering on the Black Sea also furnished wheat, flax, hemp, salt, beaver skins, wax, fish oil, and thousands of slaves, for the Caucassian countries, from time immemorial, have carried on this detestable traffic.

It would, perhaps, be interesting to give a description of the commercial route which united the West with India and China. The caravans went to Ecbatana, (Hammedan,) crossing the Caspian Gates, (a narrow defile near Teheran in ancient Media,) they arrived at Kekatonpylos, capitol of the kingdom of Parthia. From whence they crossed Hyrcania, (Astrebad,) and passing by Djorjan, they arrived at Aria, (Herat,) which has always been a great centre of commerce. From here, turning northwards, the merchants arrived at Antioch, (Merou-Shek-Djehan,) capital of Morjiana. From this point the route was easterly quite to Baches, (Balk,) then took a north-east direction, probably to follow the course of the Oxus, the caravan crossed the Mount Comede (now Mount Belour) and the high table lands of Pumere, entered Lesser Thibet at the south-east, following the course

of the river Ladouk toward the north, arrived at a very remarkable place called the Tower of Stone. At a little distance from this place was the great rendesvous of the caravans, which assembled here in order to pass together with security the great chain of the Imaus, (Himalaya.) From this place nothing further is said of the route, except that there was a journey of seven months to arrive at the capital of Serica, which proves that the caravans from the west penetrated into the heart of China.

In the time of Ptolemy, the emperor of China, Ho-Ti, wishing to revive the commercial projects of his predecessors, sent an army to the shores of the Caspian and into Persia, and a little later the Emperor Antonius sent an ambassador to China. We must not forget that from the year B. C. 56, the Chinese authors speak of the arrival of Roman vessels in the port of Canton. Phasiana, the ancient Aea, on the Phasis, was then the great mart of Eastern commerce. There were 150 bridges over the Phasis, to facilitate the intercourse between the opposite shores, which whre covered with villas, inhabited by merchants, and immense warehouses, always protected by a body of Roman troops. They were also surrounded by a fosse to prevent the invasion of the mountaineers, whose cupidity was constantly excited by the riches piled up in these establishments. The prosperity of Dioscurias, according to Pliny, was equally remarkable. It was frequented by merchants speaking 300 different languages, and the Romans were obliged to employ 130 interpreters. This city was the greatest slave market in the world, and Phasiana the greatest silk market of its time.

Before we show the decline of this commerce, we must examine particularly the relations the West with China. From the year B. C. 984, direct relations existed between China and the West, for in that year of the Emperor Mon-Wang, (the Magnificient King) went to visit a queen of the western country, called Si-Wang-Mon, or the Mother of the Western King. The country inhabited by this queen is said to be Persia, by a historian and geographer of celebrity who lived in the second century before the Christian Era. It is said that the emperor, on his return, introduced horses into China. It appears the queen returned his visit. We will pass over some centuries, till we arrive at a period when we see the relations between Western and Middle Asia more clearly defined.

In the year B. C. 140, the Emperor Won-Ti, desirous of increasing the prosperity of his people by commerce, formed treaties with the mercantile countries situated west of China. These relations probably extended as far as the Caspian, for what we have already said proves that the emperor knew how to appreciate the importance of the commercial routes which united the extreme East with the Black Sea. Europe had already for some time demanded the productions of China. This naturally fixed the attention of Won-Ti, and we remark that from this time the Chinese historians began to register the events which took place in the West—such as the war of the Patriæ against the Scythiæ in B. C. 129, 128, 127, and the destruction of the Greek kingdom of Bactriana.

The conquest of Egypt by the Romans at a later period opened a new channel of communication with China, for we learn in the annals

of this empire that in the year 56 before Christ, under the reign of Kanang-Won, Roman merchants arrived at Canton, and formed important commercial connections with the Chinese.

Between the years 80 and 100 of the Christian Era, Pan-Tchao, general of Ho-Ti, advanced as conqueror as far as the Caspian, and led away to China a great number of hostages, chosen from among the population of the countries he subjugated. This general had conceived the idea of attacking the Romans, but the Persians, who were among the nations he had conquered, persuaded him to relinquish the design by showing him the great dangers of the enterprise, the object of which it is more than probable was the opening of more active and more direct commercial relations with the West, rather than the invasion of the Roman Empire. Indeed, it appears that in addition to the necessity of exporting her own production, China also attached a great importance to those of Europe, for we find the Chinese preserving with great care quantities of articles of Greek and Roman fabrication. The discoveries made in the ruins of Panticapæum, the ancient commercial mart of the Milesians on the Black Sea, prove also that the artistic productions of Europe flowed abundantly into the East a long time previous to the advance of the General Pan-Tchao towards the West. The Chinese and Roman Emperors had desired direct and active intercourse between the two nations. The Asi, or the inhabitants of Bucharia, did all in their power to prevent the accomplishment of their desire, because they were the factors of the commerce between the East and West, and feared to see this business pass from their hands. These people were not only agents for the East and West, but they also manufactured silk and linens, which they re-exported into China and the neighboring countries. At this time the Greeks and Romans manufactured silk stuffs far superior to those of the Bucharians. They knew how to die magnificent colors, which made their fabrics greatly sought after throughout the East. To prevent this dangerous competition the Bucharians did not bring their raw silk to the markets frequented by the Romans. They would only sell manufactured silks and stuffs—a mixture of silk and cotton—which the Romans were obliged to unravel to get the silk, of which they made new stuffs, but the price was too high to make them an object of commerce.

It appears that Pan-Tchao, although coqueror, was not able to overcome this obstacle to the accomplishment of his wishes. However, a little later, during the reign of Hoang-To about 150 of our era, direct communications were established between the Black Sea and China. An ambassador was sent by Antoninus to China, and the Roman commerce became very flourishing. The western merchants received raw silk, and could give their stuffs at a modarate price. The communication of course became great where luxury became a necessity. The Romans sent still other ambassadors to China, and at last some of the western merchants decided to take this great journey.

Mr. Remusat thinks this commerce ceased upon the fall of the dynasty of Hans, about 220 of the Christian Era. At this time very active intercourse existed between China, Persia and Armenia. About the year 320, when the king of Persia, Ardeshir, disputed the possession of Armenia with Chosroes I., we see the emperor of

China offering his mediation to these two powers. Towards the year 259, Tiridale was placed on the throne of Armenia by the Romans. Similar events prove incontestibly that there was uninterrupted intercourse between China and the West. Chinese historians mention a new Roman embassy sent to the Emperor Won-Ti, of the dynasty of Tsin. In the fourth, fifth and sixth centuries, China was in constant relation with Persia and the Caspian countries. At that time the Persians sought to monopolize the silk trade, as well as the Bucharians. They did not allow the European merchants to purchase except at one single market. Possessing provinces on the shores of the Caspian, they were enabled to intercept the commerce of the Black Sea with Serica. They refused to allow the Bucharians to cross their terri ory to carry on their commerce with the Black Sea.

We must not suppose that it was only by way of Persia that silk was received. The Romans had kept possession of the Caucasian regions, and it was impossible to prevent their communication with Serica. The policy of Prince Sullinidas augmented greatly the price of silk in the western markets. This state of things was ruinous to Constantinople, for the whole of Europe depended upon her extensive manufactures for the precious stuffs made from silk. The Emperor Justinian tried in vain to import silk by the way of the Red Sea.

About 530, two Christian monks from Persia, who perhaps were sent for that purpose, in visiting the churches of the East, penetrated into China. They observed attentively everything relative to the production and fabrication of this precious material, and brought cocoons concealed in a hollow cane to constantinople. Europe was at once freed from the onerous duties she had so long paid to the East. The disorders which agitated Persia at the commencement of the seventh century, and the conquest of the country of the Arabs, (632.) gave the Bucharians an oppartunity of re-establishing the communication with the Black Sea, intercepted by the Sassanides, and the Romans hastened to renew their ancient treaties with the Celestial Empire.

We see, from the year A. D. 63, Roman ambassadors sent to Tsai-Tsoang, to whom they carried presents of crystal of every color and emeralds. Commercial transactions were made with facility at that time, for China ruled quite to the Caspian. The Chinese annals speak of Persia as a province of the middle empire. At the commencement of the eighth century several of the Persian provinces still acknowledged the sovereignty of China. The Chinese Empire extended to the shores of the Caspian at the close of the eighth century, and the commerce of the Black Sea must have been greatly benefitted by this neighborhood. It is time to retrace our steps, and take up the commerce of the Romans in the Black Sea at the point where we left it to consider especially its relations with China.

The Romans had not been able to possess themselves of all the shores of the Black Sea; they had the country lying between the Danube and Byzantium, and the Asiatic coast beyond Dioscurias. The Crimea had remained independent, although acknowledging the Roman supremacy, and near a warlike population on the north of the Black Sea, who were ever ready to make war on their empire. The Dacians had even imposed an annual tribute upon Diocletian. Tra-

jan wished to avenge this insult. He crossed the Danube, conquered Decabale, king of the Dacians, an took possession of all the country between the Danube and Taurida. Trajan had hardly teminated this glorious campaign, when an Indian ambassador came to felicitate him on the success of his arms, which proves that easy and important intercourse existed between the empire and India. Trajan marched against the Parthiæ, who refused to acknowledge the supremacy to the Romans in Armenia. Chosroes was vanquished. Many of the Oriental kings solicited alliance with Trajan. His legions penetrated into Arabia, and the parties were obliged to accept a king chosen by Trajan, their conqeror. This prince, one of the wisest perhaps of all who have worn purple, had not consecrated his whole reign to a struggle with the people of Asia merely with the frivolous object of acquiring glory.

He had in view the interests of Rome. He thought his expedition in Asia would establish firmly the frontiers of the empire. He wished to develop commerce so necessary to the prosperity of his people. Conquest alone could not lead to the desired result. Trajan conceived the project of rendering the Black Sea more Roman even than it had been Greek, and established colonies taken from the heart of Italy on the shore of the Dneister, the Dnieper, and the Bog.—After the death of this emperor in A. D. 117, the barbarians succeeded in producing agitation in the extremities of the empire, and his successor, Ælius Adrian, comprehending fully that Rome, however powerful she might be, could not hold the world in her hand; also, that the sovereignty of the people lost its force and its prestige in proportion as it removed beyond the centre of action, conceived the project of reducing the empire to the limits it had before the time of Trajan. He replaced, as soon as possible, Chosroes on the throne of Persia, and restored the territory beyond the Euphrates, which Trajan had conquered from him. He would also have yielded to him the Roman colonies established on the north of the Euxine by his predecessors, if he had not been urgently dissuaded from his purpose. Already the commerce of the Black Sea was on the decline, the Greek cities were depopulated, and Dioscurias had lost much of its importance. It could not be expected that Adrian would make an effort to re-establish relations with the Oriental countries. This commerce only produced articles of luxury for the empire, and this consideration doubtless made it appear rather dangerous than useful to a prince who affected to desire the return of the Romans to their primitive simplicity, and who went bareheaded in winter, and lived on pork and cheese, and took pleasure in drinking water impregnated with vinegar.

Adrian, however, kept the Caucasian regions, which served as a barrier to the empire against the invasions of the Sythaæ and the barbarous people established to the north of Clochida. Armenian acknowledged the Roman dominion, and this protected the communication between the Black and Caspian Seas. How, then shall we explain the rapid decline of the commerce of the Black Sea? We shall easily find the explanation if we cast an eye upon the desert which spread out between the Euphrates and the Oronto. There rose Palmyra. At the time we speak of she had risen to such a standing

in wealth and consequence, that she was soon able to hold in check the forces of Sassanides and crown one of her own princes, but lately lost in obscurity, with the title of August, and robed him in the purple of the Cæzars. Palmyra owed its existence to one of those limpid streams which create an oasis in the midst of the burning sands of the desert. She owed her greatness to commerce, which by degrees had populated and enriched her. Being situated on the route of the caravans which went from upper Asia to the ports of Syria, of Phœnicia, and those upon the borders of the Nile, she became finally the metropolis of an immense commerce, and attracted into her caravansaries the precious merchandize, which the European vessels for more than a century had come to seek in the ports of Colchidia. Antoninus, the successor of Ælius Adrian. (138.) probably sought to restore to the commerce of the Black Sea the importance it had lost. We have already said that he sent ambassadors to China. This step could only be explained by his having a commercial object in view. It is also probable that his ministers were charged to visit at the same time, Bactriana, Penjab, and the intermediate countries, for history shows us that he received himself Hircanian, Bactrian and Indian ambassadors. Under Marcus Aurelius, (A. D. 161-180,) the Romans appointed a little king of Iberia, senator and consul. This country was watered by the river Syrus, whose importance in a commercial point of view, we have already mentioned. In A. D. 223, the Roman power in the East was shaken by Sassanides, who endeavored to restore to Persia her ancient limits.

Odenat, king of Palmyra, arrested their invasions, A. D. 256. Zenobia, his widow, who styled herself the Queen of the East, had the presumption to imagine she could establish an empire, which should have the Mediterranean for frontier on the west, and Egypt on the south-east. The valley of ths Nile did for a moment acknowledge her sovereignty. It was a project worthy of the queen of a city emminently commercial.

Zenobia had for allies Persia, Armenia, and Arabia ; but Rome after having so many emperors without talent or energy, had just raised Demetrius Aurelian to the throne, (A. D. 170.) Zenobia, after losing two great battles, was besieged in her capital. Palmyra fell into the hands of the Romans, and her commerce declined; but that of the Black Sea gained less by this event than one would have supposed, for the Persians who soon acquired great preponderance in the East, constantly sought to divert it for their own profit. This was easily done, as they were masters of the province of Upper Asia as far as the frontiers of India, and of the countries situated on the south and south-west of the Caspian. But the victories of Aurelian must have restored a degree of activity to the commerce of the East by the Black Sea, for we see, according to Vapiscus, that he received ambassadors from the Iberians, the Albanians, the Armenians, the Indians and the Seres. A purely political motive might have influenced the three first mentioned people to send ambassadors to the emperor, but the Indians and the Seres could have had no other motive than a regard for their commercial interests. The victories which Maximilian gained over the Persians, strengthened the friendly relations of the empire with the Indian princes, and two kings of this country,

who were called Genobon and Esaleck, it is said, put themselves under the protection of Diocletian. From this we may conclude they were distrustful of the ambition of the Persian monarchs. A new phase was about to open for the Black Sea.

Constantine rendered himself odious to the Romans by the ferocity of his character, by pillaging the temples, and persecuting polytheism, to which the Romans were still much attached. The people insulted him when he appeared in public and heaped reproaches of every sort upon him. Disgusted with his unpopularity he turned his back for ever on the city of the Cæsars, and determined to give a new capital to the empire. He thought at first to rebuild Troy, of poetic memory, and had traced the circuit of the city near the tomb of Ajax, when, enlightened, it is said, by a celestial vision, he suddenly abandoned his first project, and coming to antique Byzantium, gave it the extent and the magnificence of a new Rome. The celestial vision which had decided the choice of Constantine, was a happy political inspiration. Byzantium, in addition to its admirable position for commerce, was on one of the great routes followed by the barbarians when they sought to penetrate into Asia Minor and into Greece. By transferring the seat of the empire to this city, an impenetrable barrier was raised against them. Byzantium, from being on the frontiers as it was formerly, had become entirely central, for the Roman possessions extended on the east and south as far as the Euphrates, the Caspian, the Red Sea and Ethiopia.

Constantine soon attracted an immense population to this city. The Egyptian fleet, destined to supply Rome, changed its destination, and was placed at the service of Constantinople. The news of this great change in the empire resounded all over the eastern world. Constantine received Ambassadors from India loaded with presents. Twenty-four years after his death, Julian enriched Constantinople with a magnificent harbor, and Roman vessels plowed the Black Sea in every direction to furnish the markets of the capital wilh delicious fruits, and timber for building was brought from the northern part of Asia Minor; fish from the Sea of Azof; wheat from the Crimea. The commerce of the East would not be neglected. The luxury of the Byzantines surpassed in refinement that of imperial Rome. They must have stuffs wrought in gold and silver, rich carpets, tissues of silk, diamonds, pearls, and perfumery. Egypt furnished a part of these necessary objects—the others came by the way of the Euphrates and the Black Sea, either directly or after having passed through the hands of the Persians, who made their western rivals pay at a dear rate.

Towards the close of the sixteenth century silk, which was by this time naturslized in the West, was produced in abundance; however, they still continued bringing it from Serica in considerable quantities. In the time of Justinian, Constantinople received cotton from the East; for after the destruction of Carthage cotton ceased to be cultivated in the West. In the early part of the seventh century the Persians conquered Egypt, (A. D. 616.) In A. D. 632, they were dispossessed by the Arabs. The loss of this province was a disastrous event for Constantinople, which she nourished with her grains and enriched with her commerce. But the Arabs in the same year over-

turned the empire of the Sassanides. This was in some measure a compensation to Bysantium, for the obstacles which the kings of Persia placed in the way of the intercourse of the East with the Black Sea disappeared at once, and the merchandise of India and the Persian Gulf ceasing to flow towards Alexandria, was forced into the route of the Caspian and the Pont Euxine. Commerce is, in effect, like a great river, which may be turned from its course, but can never be arrested.

The destiny of Constantinople was indissolubly connected with her possession of the Black Sea, which opened to her such vast resources, for the coutries on the east and south of the Euxine were inhabited by a christian population, whose intimate intercourse with the Greek Empire increased in proportion as Islamism gained ground. Beside, all the countries situated between the Euphrates, the Caspian Sea, and the frontiers of India, were filled with Jews. In the fourth century, Sapor III, destroyed 20,000 houses at Van, all inhabited by Jews. When Benjamin of Tudele traveled over the East, he found 50,000 of his nation at Hamadan, and he speaks of many thousands who dwelt in the different cities on the route leading from Armenia to Samarceand, where were as many as at Hamadan. The Israelitish traveler takes care to mention that by far the greatest part of the Jews were very opulent. It is probable that in the middle ages the principal commerce of the Indies, of China, of Bactriana, and of Persia, was in the hands of the Israelites. This is another proof of the great importance of the trade betweun the extreme East and the Black Sea, for the skilful and obstinate Jew, who gave his allegiance to every government, submitted to every necessity, passed through all the obstacles without letting the scepter of commerce. which he has held for twenty-four or twenty-five centuries, fall from his hands.

Arabs, led on by the ardor of proselytism, advanced as conquerors as far as India and into Bucharia. They soon understood the advantages to be derived from the position they had gained, and made themselves the factors of the commerce between the East and the West.

From Bucharia, the great depot of the merchandise brought from India and China, they spread towards the Caspian; from there they advanced on one side as far as the Black Sea, and on the other to the Baltic, following the course of the Volga. From the Caspian quite to the Baltic, there is found an enormous quantity of Arabian money of the time of Abassides, and in the ruins of Boulghar, not far from Kazan, on the Volgo, there are found Arabian inscriptions graven on stones forming tumuli.

The Mussulmen of Bucharia, crossing Eastern Russia, went on as far as the frozen ocean. Many inscriptions of the Arabs and objects of art are found in Siberia, such as mirrors of Bronze, earthen lamps, figures of animals, either real or fantastic. Thus we see that in the middle ages the rich productions of Upper Asia came to Europe by the northern seas, by Spain, and soon after by Venice and Genoa, whose ships went to seek them to the extremity of the Black Sea, to the shores of Syria, and even to Egypt, where the Arabs had attracted them. This flourishing commerce restored the life to Constantinople, which at one time seemed to have left her forever. In 867 and 1056 the eastern emperors recovered numerous provinces

which they had lost, namely, Bulgaria, Servia, the Island of Cyprus, Silicia, the Island of Crete, Aleppo and its territory, and Sicily. In 1063, the invasion of the Seldjoucides convulsed anew the Byzantine Empire, which from that date lost all her Asiatic provinces from the Caucasus to the Mediterranean.

The Seldjoucides made themselves masters of Asia as far as the Oxus, Samarkand and Bucharia, which they took from the Arabs. But their princes favored science and the arts, and commerce was not interrupted. Toward the close of the twelfth century, when Benjamin Tudele made his celebrated journey, Constantinople was the great commercial city of the world. Bagdad alone could in any degree be compared to her. He says: "Constantinople is a place frequented by all sorts of merchants, as well from the provinces of Babylon, of Messopotamia, of Media, of Persia, as from the kingdoms of Egypt, of Canaan, of Russia, of Hungary, of Psianki, of Burie, of Lombardy, and of Spain. This city is open to all the world without distinction of religion or of country. There is no city on the earth to be compared in the least to her except Bagdad, the most powerful city of the Ishmaelites. The Greeks who dwell in Constantinople are of a wonderful magnificence; their clothes are made of rich stuffs wrought in gold and silver, they wear a profusion of precious stones. The Jews are numerous, of whom many are workers in dresses of silk, and others are merchants, for, although the Greeks hold them in aversion and illtreat them, it does not prevent many of them from becoming rich and respectable."

In the tenth century the Empire of the East declined rapidly. Venice, which for a long time had nominally formed a part of it, declared herself independent, and her powerful marine ruled in the Mediterranean at the moment of the outbreak of the great religious movement, in which Christian Europe rushed upon Mussulman Asia. The Venetians, whose commercial interests had given rise to an intercourse with the Infidels, did not sympathize with the general enthusiasm for adventurous expeditions. A commercial people are always philosophic. The republic could not without compromising her own existence, keep entirely aloof. She followed the movement, and in some respects put herself at the head. She transported the armies of the Crusaders, received their gold in exchange, and when the payment was too long delayed, she received as an indemnification some one of the eommmercial cities which the Christians had taken from the enemy. While kings, princes, seignors, down to the most insignificant of their class belonging to Christianity, united themselves in a spirit of devotion to obtain possession of an apochryphal tomb, Venice enriched herself with their spoils. Her ambition soon demanded a wider horizon. She contrived the project of becoming mistress of the commerce of the Black Sea. The Crusaders on more than one occasion had reason to complain of the perfidy of the Byzantine emperors. The Greeks were schismatic. The Roman Catholics armed for the defense of the faith. Had not they the right to attack Constantinople? It was this that Henry Dandolo undertook to make a Gorman and French army of Crusaders understand, who in 1202 came to Venice to procure vessels to transport them to the scene of war. The Pope had indeed forbidden an attack uaon the Greek em-

pire, but it was perfectly understood that a Latin empire, which would immediately replace Constantinople, under the supremacy of the Pope, would be recognized by the court of Rome. The Crusaders accordingly took possessions of Byzantium the 12th of April, 1204. Baldwin, count of Flanders, was proclaimed emperor. The sovereign Pontiff, as the Doge had anticipated, received the news with the liveliest satisfaction. He even promised Baldwin to use all his influence to consolidate the new empire. But the successor to St. Peter owed it to himself to punish the conquerors for their disobedience, and he enjoined upon them penances for the disorders of which they had been guilty. It was to the Venetians that they owed the idea, and the success of the enterprise.

Dandolo might with justice have claimed the imperial purple for himself ; but he was too profound a politician to desire it. He felt that the new empire had no chance of permanent existence, and he wisely judged advatageous for his country to take the second place, in which the Venitians could enrich without compromising herself. He contented himself with the title of Prince of Rocemilic, and reserved for Venice the quarter in Constantinople, La Morce, the centre of the production of silk in the West, a great number of fertile islands, which stretch along in the Mediterranean from the Adriatic Gulf to the Bosphorus. He bought also from the Marquis Montferrat the important island of Candia, which this nobleman had obtained in the division of the empire of the East. Thus Venice at a moment became mistress of the Mediterranean and of the Black Sea, where her vessels had already carried on an active competition with the Genoese. She was now the absolute mistress, and the care of providing for the necessities and the demands of luxury of the populous capital of the empire, was the exclusive privilege of her galleys.

Other events of great interest to the commerce of the Black Sea were on the eve of accomplishment in the Taurida, which had been occupied since the close of the ninth century by the Turks Petchinegres, who had been joined by the Comans, or Kiptchak, called also Poutoutges, a people of the same origin. It was Gengis Khan who advanced towards the West with his hordes of Tartars and Monguls —his lieutenants penetrated into Taurida. Bauto Khanu, his grandson joined it to the Empire of Kiptchak, and fixed his residence in Levkopol, not far from Caffa. All Asia, from the Black Sea and the Euphrates to India, obeyed the princes of the family of Gengis Khan, and soon after the great Koubtai Khan ascended the throne of China, and elevated the country to a degree of prosperity and power hitherto unheard of. These Gengis Khanides princes were not barbarians as is often thought; they protected the arts and sciences, and Koubtai Kan did not spare any expense to bring around him the learned men of India, of Persia, and even of Christian Europe. The Venetians soon appreciated the importance of establishing friendly relations with the Mogul princes, whose dominions extended to the extreme limits of Asia. By means of the Tartars the East could discharge her rishes into the Black Sea. They soon taught the sovereigns of the Crimea to understand the the advantages they would themselves gain by this commerce, and soon the productions of the East arrived in great abundance. Samarkand, which had caused Balkh to

be forgotten, and which was destined soon to give way to Bucharia, became the great depot of this commerce. The merchandise transported by the Caspian, reascended the Volga, passed into the Don, and after a short distance of land carriage, descended to Tanai, at the mouth of this river on the Sea of Azoff, where the Venetians had established their vast magazines. The Volga and the Don, near Tcherkask suddenly approach each other, and are only separated by a distance of forty Italian miles, actually reduced to five miles by two of their tributary streams. A canal made at this point would connect the Black with the Caspian Sea.

The Mongols undertook this great work at the instigation of the Venetians, but they had not time to finish it. While the Venetians were making every effort to establish permanently their commerce in the Black Sea, the Greek sovereigns of Nicene and of Trebizond were exerting themselves to take Constantinople from the Latins. The Venitian fleets paralysed these efforts for a long time. They even destroyed the vessels equipped at great expense by John Valace, and beat the Genoese, whose interests led them to desire the ruin of the Latins as much as those of Venice did to defend them. In 1261, Michael Paleologue V., Emperor of Nice, succeeded, with the aid of the Genoese, in entering Byzantium, for these bold merchants did not hesitate, in the furtherance of their commercial interests, to brave the thunders of the Church, by restoring Constantinople to the schismatic Greeks. They obtained from Michael Paleologue all the privileges which the Venetians had enjoyed for more than half a century—they had the faubourg of Pera, the right of fishing, and the monopoly of the customs. The influence of the Venitians was such, however, that Michael Paleologue could not refuse them permission to reside at Constantinople. Their interests were respected, and they obtained the right to establish a bailli at Byzantium, charged with the duty of protecting the subjects of the republic. The Genoese would have been glad to prevent the Venitian galleys from entering the Black Sea, but this was not to be thought of. They failed also in their design of imposing a heavy duty of entry and *sortie* on the vessels and on the merchandise under Veneitan colors. Nevertheless, Venice saw with anger the superiority that the fall of the Latin empire had assured to the Genoese. She sent twenty-five galleys into the Black Sea, which took possession of Caffa, and pillaged the Genoese esaablishments even to the faubourg of Pera. A deadly war was lighted between the two cities. The Genoese triumphed before the island of Curzola, on the coasts of Dalmatia, (1296,) and acquired so great an influence in Constantinople, that they held, as it were, the lives of the inhabitants in their hands, whom they could starve at will, as they had acquired the sole right of provisioning the city.

The freedom of the Black Sea was at that time loudly claimed. The galleys of Pisa frequented it, and a short time after the re-establishment of the Greek Empire, the Sultan of Cairo asked permission of Michael Paleologue to send Egyptian vessels, or those under Egyptian colors, to buy slaves on the coast of Circassia, for the recruitment of the Mamalukes; but the Genoese masters of Pera, which they fortified at their own expense, obliged all the vessels which presented themselves at this passage of the Bosphorus to pay a cotribution,

which produced annually some millions of francs. The Venetian galleys alone were exempt from this tax. The Genoese were established since 1270 at Caffa, on the site of the ancient Cafum. They had been led there by some chief of ability whose name being written Auria, leads us to suppose that he belonged to that illustrious family of Doria, which has acted so distinguished a part in the history of Genoa and Italy. They obtained permission of the Khan of the Tartars to construct warehouses on this important point. Instead of counting houses they built a fortress, which soon became a populous city and depot for all the commerce of the Black Sea, gaining continually upon the territory of the Khan. They erected the redoubtable citadel of Soldaja, near to Sondak, and other forts near Sebastopol Balaklava, Panticopec, and in the island of Taman, on the other side of the island of Caffa. They were established on other points, and in particular at Cymbanon, the ancient port of the Symboles, so celebrated in antiquity as a place of refuge for the pirates Achiens, Tigues, and Hersiochens. These establishments were so important that the Genoese, independant of the administration they had organized at Caffa, had instituted at Genoa a minister of these colonies, which bore the name of Khazains. A severe winter, together with a great famine, obliged the Venetians to abandon Caffa after the coup de main of 1293.

The city had soon repaired all its losses, and the Tare, the great counting house of the Venetians, lost all its importance, however the commerce of Venice in the Black Sea continued to prosper.

Trebizond offered an advantageous market for the various productions of her industry, and her vessels also found there the merchandise of India, of Persia, of Armenia, and of the oriental provinces of Asia Minor. The pearls of the queen sea, the perfumes of Arabia, articles of every kind brought by the caravans to Bagdad, came also by the Euphrates, for Trebizond had become the centre of a considerable commerce, since it was made the capital of one of the little Greek empires, formed in Asia Minor after the occupation of Constantinople by the Crusaders.

But the navigation of the Black Sea had become fraught with dangers that did not exist at an early period. The Turks who had for two centuries inhabited some part of its shores, became navigators. They attacked with their weak vessels the Genoese and Venetians. and pillaged them unmercifully. The two republics were obliged to support a considerable number of ships of war, to escort and protect their merchant vessels. Indeed the Venetians withdrew their ordiary merchant vessels, and replaced them by strong armed ships.—This occasioned great expenses, and diminished the profits of commercial relations, and partially paralysed the activity of the merchants who no longer dared to go to many parts of the coast. The large vessels could not enter into many of the ports. The Sea of Azoff could not be navigated except by light vessels. This prevented the entrance of large Venetian ships, and consequently the importance of Tanais as a commercial port declined. The Venetians sent out two fleets every year, one composed of light craft, which coasted along the northern shores of the Black Sea, where the Turkish pirates were less to be feared, and went to Tanais, (now Azoff;) the

other composed of large, strong, armed ships, followed the Asiatic coast to Trebizond, whose port is accessible to large vessels. In spite of all these precautions, their vessels, even the armed galleys, were often captured by the corsairs.

Notwithstanding such numerous obstacles, the Genoese and Venetians continued to carry on an active commerce in the Black Seas. This last-mentioned power conceived a new project worthy of the genius that had conceived and realized the establishment of a Latin empire at Constantinople. Venice had been forced to share the commerce of the Black Sea with Genoa, her eternal rival, but she did not give up the hope of recovering the exclusive monopoly of this commerce, to which she wished to add that of Sweden, of Arabia, and Africa by Egypt. She ruled still in the Mediterranean, where she had preserved the precious fragments which Dandola had detached from the Byzantine empire for her. The island of Candia belonged to her, and from there in a hundred hours her fleets could reach Alexandria. Placed so near Egypt, Venice began to dream of possessing the country, for which she would have rapidly created a prosperous commerce. But how was she to accomplish the double object she had in view? Could she a second time overthrow the Greek empire? Could she exterminate the Mamalukes who reigned in the valley of the Nile? No; this could not be done. But a half century had scarcely passed since the crusade of St. Louis against Tunis, and fanatacism was not yet extinct in Europe. Venice undertook to resuscitate the religious zeal of the Christians, and level them against the infidels and heretics for the profit of her commerce. One of the most distinguished patricians, Marino Sanudo, a man of superior ability and of great experience, who made five journeys into the East to study the condition of the Mussulman population, was chosen to explain to Christendom this new object of crusade.

It was in 1321 Sanudo urged a crowd of reasons to prove that the efforts of the Christians should be principally directed towards Egypt, and Venice placed all her galleys at the disposition of the crusaders. Sanudo then directed attention to all the advantages which Europe would derive from the commerce of Christian Egypt. He proposed to open a canal between the Nile and the Red Sea. He wrote at the same time to different sovereigns in Europe, sought to awaken their hatred against the schismatic Greeks, and proposed to reunite the church of Constantinople with that of Rome. But the time of crusades was past, and the Christian princes remained deaf to the call of Venice.

Having failed in their attempt, and seeng the continued progress the Turks were making in Asia Minor, the Venetians resolved to renew, at any price, their former relations with Egypt. The Mamalukes were furious against them for wishing to unchain the fanatacism of the Europeans against them, but the rich presents of the republic insured a favorable reception for their ambassadors. Besides, the ambition of the Turks began to be a source of serious anxiety to the Egyptians; they needed money to resist this dangerous enemy who advanced on the coast of Syria. The Venetians offered to render the commerce of Egypt prosperous, and the two powers concluded a treaty in 1347, which, apart from the duties paid to the Sultan, as-

sured to Venice the monopoly of the commerce of India and Africa. The Genoese, always haughty and proud, had displeased John VI., Cantacuzene. This prince had an intelligent mind, and saw that the empire had incessantly declined since the Venetians and Genoese had beoome masters of the commerce of the Black Sea.

Constantinople, that had been so brilliant while enriched by the commerce of the Euxine, rather vegetated than lived since she had yielded the monopoly to strangers, and this capital, whose luxury excited so greatly the admiration of Benjamin Tudele scarcely 250 years before, was fallen low, and the imperial treasury was poor, when John Cantacuzene was crowned. Siberia supplied her with iron, as she had done the Roman merchants twelve or thirteen centuries before, which shows the obstinacy with which a nation will maintain, in spite of wars, of invasions and revolutions, commercial relations from which they had derived so much prosperity.

The Venetians bought in the northern ports of the Black Sea, an enormous quantity of wool, hemp and flax, which they needed to furnish their numerous manufactories, from which they carried cloths of all sorts to all the ports of the Mediterranean; also for the fabrication of their fine linens which were so much sought after ; and their sail-cloths and cordage, of which they made themselves such a prodigeous consumpsion, with their three or four thousand ships dispersed over all the seas of Europe. The southern ports of the Black Sea furnished to commerce rich carpets and beautiful stuffs of Persia, with skins of the Angora goat, and the camel with hair from which they made formerly at Venice the camlets formerly so much esteemed ; wax, medicinal plants, and dye-stuffs ; raw-silk, but in smaller quantities than from the opposite coast ; honey, precious metals, pearls, diamonds, perfumes, and timber for building.

The imports of the Venetians and Geneoese into the Black Sea were much less considerable than the exports. They consisted in linen stuffs, of cotton and woolen, arms, skins dyed purple or scarlet, gilded leathers, cloths of gold and silver, thread of gold and silver, velvets, opiates, satins, glass, iron utensils, jewelry, and pieces in money to be worn as ornaments by the Tartar and Casaque women. When the Tartars took their counting fairs at Tanais from the Venetians, the Greek empire was in the last phase of its expiring agony.

[TO BE CONTINUED.]

ARTICLE V.

Review for the Western Journal.

GAYARRE'S SPANISH DOMINATION OVER LOUISIANA. CORRUPTION OF GENERAL JAMES WILKINSON. REDFIELD. New York. 1854. By *Mann Butler*, Esq., of St. Louis, Mo.

Twenty years ago, when publishing the History of Kentucky, I contended earnestly for the fidelity of General James Wilkinson to his duties as an American patriot, and a citizen of the United States. I did this in opposition to a powerful party in Kentucky, which had been the scene of this gentleman's earliest movements in the western country; as well as to many able and well informed men, in other parts of the United States. Nor was this opinion peculiar to the author; two military courts, one of inquiry, and the other a court martial, on the conduct of Gen. James Wilkinson, acquitted him of all the allegations made against him on the part of the United States government, and these sentences were approved by two Presidents of the United States. Nor did the author content himself with this authority potent as it was; but he made it his duty to sift the voluminous mass of testimony collected on this subject, and running through so many years. The result of this laborious investigation was that "this officer had been wronged by the suspicions and denunciations which had been so long and bitterly indulged against his honesty."* At the same time, the suggestion was expressed that "future memoirs of Spanish statesmen, and access to the archives of their secret and jealous country, may one day develope the mystery of the first steps of Spanish intrigue in Kentucky."

But the expectation was hardly indulged that this conjecture of an obscure author in the interior of Kentucky would so soon be verified in the most indubitable manner, and with decided effect. By a resolution of the Legislature of the State of Louisiana, in pursuance of a most liberal and honorable policy, "M. de Gayangos, a gentleman distinguished for his learning and literary works, and also under the direction of his Excellency, Romulus Saunders, who was then the United States Minister Plenipotentiary at Madrid," the colonial dispatches which passed between the home government and its officers in Louisiana, were permitted by the Spanish government to be copied, and the copies "are deposited in the office of the Secretary of State, at Baton Rouge."‡ To this noble policy of the State of Louisiana, which has likewise been pursued

* History of Kentucky, 2d Edit., 161.

† Gayarre, 211.

‡ Idem, p. 210.

by the State of New York, at the Hague, the ancient central seat of Netherland's power and colonization, and to M. Gayarre's most interesting work, we owe the full drawn discovery trom these documents of Wilkinson's *traitorous* negociations with the Spanish authorities at New Orleans, and the Spanish minister to the United States, Don Gardoqui. From these dispatches it appears that Wilkinson, on his first visit from Kentucky to New Orleans, in 1787, addressed a memorial to the Spanish governor, Don Miro, expatiating upon the political interests of the western country and the Spanish province on the Mississippi, the right of the people of the upper country to its navigation, and the advantage which both parties might reap from commercial intercourse. This was the character of the memorial as read before a Kentucky convention: An account of this memorial was communicated by Col. Thomas Marshal, of Kentucky, to Gen. Washington, in February, 1779, communicated to the present writer by Mr. Sparks.* But it appears that the memorial communicated to the Spanish government must have had much more significant passages than the one read before the Kentucky convention. Miro, in a dispatch of 1788 to the Spanish Secretary of State, says, among other matters, that "the *delivering up of Kentucky into his Majesty's hands*, (meaning these of the king of Spain,) *which is the main object to which Wilkinson has promised* to devote himself, would forever constitute this province (Louisiana,) a rampart for the protection of New Spain."† This idea, that passages contained in the memorial addressed to Gov. Miro, were suppressed in that read to the Kentucky convention, independent of its own probability, is confirmed by the remark of Miro in another of his dispatches to the home government, relating that Wilkinson in reading his memorial to the Kentucky convention, "has so completely bound himself that, should he not be able to obtain the separation of Kentucky from the United States, it has become impossible for him to live in it, *unless he has suppressed, which is possible, certain passages which might injure him*"‡

The treasonable disaffection of Wilkinson to his own country and corrupt subserviency to Spain appears more conclusively from another passage of one of Wilkinson's letter to the Spanish officers, quoted by them in an official communication of April 11th, 1788, as follows, "I pray you to content yourselves (Gov. Miro and the Intendant of New Orleans, Navarro,) with this assurance: *alt my predictions are verifying themselves, and not a measure taken on both sides of the mountains which does not conspire to favor ours.*"‖

* History of Kentucky, App., 2d edit., 519.

† Gayarre, 199.

‡ Idem, 254.

‖ Idem, 206.

In concert with Wilkinson, to show the people of Kentucky the advantages of a trade with New Orleans, the agents of Wilkinson, Daniel Clark, Sen., of New Orleans, and Major Dunn, of Kentucky, were permitted to take a cargo of eatables and dry goods, destined for the Kentucky market, to the amount of $18,246.75, including the proceeds of a cargo of Kentucky tobacco, sent by Wilkinson under Major Dunn, to the amount of $7,000. "I have written," says the Governor, "to Wilkinson not to sell the goods at a higher price than they cost here, because it is highly important that this first essay should inspire the inhabitants of Kentucky with the most flattering hopes."* It needs little remark to show that if the goods had not been paid for by the Spanish government at New Orleans, it would not have presumed to fix the price at which they should be sold.

To confirm Wilkinson's corrupt adherence to Spanish interests, I will select another paragraph. In a letter of his, addressed to Governor Miro, of 14th February, 1789, in speaking of the memorial which Wilkinson had been entrusted by the Kentucky convention to draft for the consideration of the old Congress praying for admission into the Union and the navigation of the Mississippi, he says: "You will observe that the memorial to Congress was presented by me, and perhaps your first impression will be that of surprise at such a document having issued from the pen of a good *Spaniard.* But on further reflection, you will discover that my policy is to justify in the eye of the world our *meditated separation* from the rest of the Union, and quiet the apprehensions of some friends in the Atlantic States."†

Again Wilkinson writes to Miro: "I deem it useless to mention to a gentleman well versed in political history that the great spring and prime mover in all negociations is *money.* Although not being authorized by you to do so, yet I found it necessary to use this lever, in order to confirm some of our eminent citizens in their attachment to our cause, and to supply others with the means of operating vigor. For these purposes I have advanced five thousand dollars out of my own funds, and half of this sum, applied opportunely, would attract Marshal and Muter on our side; but it is now impossible for me to disburse it."‡ This is amusing indeed to those acquainted with Wilkinson who scarcely ever paid his own debts! He was always embarrassed by them; so much so that when he descended the Ohio, in 1803, to take possession of Louisiana, for the United States, he durst not land on the Kentucky shore; but held a levee on the Indiana side of the river, opposite to Louisville, in high parade — that this man should wheedle the governor of Louisiana into the belief that he had *advanced* $5,000 for the

* Idem, 220.
† Idem, 246.
‡ Idem, 240.

interests of the king of Spain, would be laughable, if it was not treacherous. "Good Spaniard," as Wilkinson termed himself, his knavery far exceeded his loyalty. Yet so overwhelming was the confidence of Miro in the fidelity of Wilkinson to Spanish interest, that he formally "recommends that the $5,000, which Wilkinson declared having spent for the benefit of Spain, be *refunded* to him, and that he be further intrusted with the $2,500, which he asked for to corrupt *Marshal* and *Muter*."*

It may be necessary to apprize the young reader of western history, that Spain had no more determined antagonists in Kentucky than Col. Thos. Marshall, the friend and correspondent of Washington, and the simple and straight forward Muter. They headed the country or American party in the Kentucky politics of 1788 and 1790, in opposition to the court or Spanish party, as it was termed. The memory of these men has not a stain of dishonor left upon it as patriots and good citizens. Col. Marshal, the father of the great Chief Justice, was one who apprised Washington of the movements of the Spanish party in Kentucky. Was he then likely to inform against those who are represented as his own associates?

But Wilkinson was not contented with claims upon the Spanish government for *advances made* and *funds to buy up* more Spanish adherents; but he had his famous tobacco contract with Gov. Miro to deliver tobacco in the king's stores at New Orleans at the moderate advance of nine and a half or ten dollars per hundred, which cost $2 in Kentucky. This contract, Humphrey Marshall, the primitive and graphic historion of Kentucky, shrewdly conjectured to be only a cover for Wilkinson's corruption, or in his own words, "it was a mere cover for a pension," "the clandestine and dishonorable part concealed from all but coadjutors."† And here it is only fair to confess that this construction was opposed by the writer of this essay, on what he then thought, and with him two Presidents of the United States, and two military courts also thought, good grounds of disbelief. But which he now, under the full lights of evidence produced by M. Gayarre *openly and unreservedly abandons.*

Under this corrupt contract so artfully used by Wilkinson before the military courts and confirmed by the ready testimony of *Spanish* officers corroberating the fidelity of an American servant of their common master, Miro informs the Spanish government, on the 11th of April, 1789, that "he had bought from the General for the account of the royal treasury, 235,000 pounds of tobacco, for which transaction he begged the approbation of his Majesty," on the ground that it was important to keep the General contented."‡ The final testimony agaist Wilkinson, is the following ex-

* Idem, 256.
† Marshall, I, 183.
‡ Gayarre, 256.

tract from a letter of Miro's to the government at home, dated 22d of May, 1789, "Nevertheless I am of opinion that said Brigadier General (meaning Wilkinson) ought to be *retained* in the service of his Majesty with an annual pension of $2,000, which I have already proposed in my confidential dispatch No. 46, because the inhabitants of Kentucky and at the other establishments on the Ohio, will not be able to undertake anything against this province *without his communicating it to us*, and without his making at the same time *all possible efforts to dissuade them from any bad designs against us, as he has already done repeatedly.*"*

Miro concludes this letter with the recommendation that a pension be granted to Sebastian, "because I think it proper to treat with this individual, who will be able to enlighten me on the conduct of Wilkinson, and what we have to expect from the plans of the said brigadier general." Well does M. Gayarre express his indignation at this bribery and treachery in the following stern and disdainful language. "Thus everything was done according to the most approved rules laid down in the code of corruption: '*set a thief to catch a thief, and a spy after another spy.*' Thus Wilkinson was employed to watch the Kentuckians, and Sebastian to betray his confederate Wilkinson. Not a link wanting in the chain of infamy."

M. Gayarre does not seem to have known that the bribery by Spain of Sebastian, at the rate of $2,000 per annum, while a Judge of the Court of Appeals of Kentucky had been established in 1806, 1807 by legislative proof; it is contained in the records of Kentucky. This evidence obtained from the archives of Spain only shows that this Spanish pension begun much earlier than was at first imagined; it was not known in Kentucky until the session of 1806–7 of the Legislature of that State.

Comment on this testimony would be wanton superfluity; it establishes the corrupt agency of Wilkinson in the service of Spain, how long, does not yet appear, but in all probability as long as Sebastian, and he is known to have received his pension as late as 1806. In 1799, after the surrender of the south-western portion of Georgia, under the Spanish treaty of 1795, to the United States, Morales, the Intendant of New Orleans, writes to his government, that "Concealing what we know of his (Wilkinson's) reprehensible deportment towards us, we have given him as kind and as favorable a welcome as his rank required, (brigadier general in the army of the United States,) and our means permitted in this country."* In 1798, when Wilkinson was in command of the army of the U. States, Daniel Clark, Jr., testifies that he had warned him at Natchez, of the danger of continuing his connection with Spain, had

* Idem, 286.

† Idem, 402.

promised him secrecy, and that Wilkinson had assured him that he had terminated his agency for Spain.*

All the subterfuges of the tobacco contract with the Spanish government at New Orleans, under which the various remittances of money to Wilkinson from the authorities of that government, have been cloaked and so *proved* before the Court martial of 1808, are now exposed and laid bare. It was under this pretense that the two mule loads of silver delivered by Col. Bollinger to Wilkinson, at Frankfort, Ky., in 1789, were said to be received.† So the $4000 paid to La Cassagne, the postmaster at Louisville, Ky., in 1792; the $6000 sent by Owen (who was murdered on the way by his own crew,) in 1794; the $6350 remitted by J. E. Owen, in the same year; the $9000 paid Philip Nolan, at New Orleans, in 1796, were all sheltered by this omnipotent contract, and placed to its *honest* commercial account.‡ What Gov. Miro thought of this contract, we see by his language to his own government, "that it was important to *keep the General* (meaning Wilkinson) *contented.*"‖ If it had been a mere commercial contract, how would it have justified the long secret and confidential correspondence between Wilkinson, the Spanish parties and their own government? It was confided, on this side of the Atlantic, to the successive governors of Louisiana, and Navarro, the Intendant; but made the subject of long deliberate communications to the Spanish government at home. When Navarro returned to Europe, which was in 1788,§ the offices of governor and Intendant were united in Miro, in order to preserve the secrecy of this negociation. But if anything were wanting after these details, to establish the corruption and treachery of Wilkinson, in his connection with the Spanish government at New Orleans, it may be furnished by the following language of Gov. Miro to Wilkinson. The latter had said in one of his letters, "that he had become an object of suspicion to his government; and that his situation was mortally painful, because while *abhorring* duplicity, he was obliged to dissemble, wherefore he was seeking for the occasion of professing himself puclicly the *vassal* of his Catholic Majesty, in order to claim his protection in whatever public or private measures he might devise to promote the interests of the crown."¶ To this *candid* and *loyal* address, Miro replied: "I much regret that General Washington and Congress suspect your connection with me, but it does not appear opportune that you declare yourself a Spaniard for the reasons you state. I am of opinion that this idea of yours is not convenient, and that, on the contrary, it might have prejudicial results. There-

* Am. State Papers, vol. 20.
* Wilkinson's Memoirs, vol. 2, 199.
* Wilkinson's Memoirs, 2, 119.
* Gayarre, 256.
† Idem, 216.
† Idem, 284.

fore continue to *dissemble and to work as you promise*, as I have above indicated."* But as if debasement still had a lower depth, Wilkinson, in 1790, writes to Miro: "You may rest assured that the constant persecution of Congress can not produce the slightest impression on my attachment and zeal for the interests of Spain, which I shall always be ready to defend *with my tongue, my pen and my sword.*" It is only necessary to recollect that this language proceded from one who had been high in the confidence of the American government, had risen to the grade of Brigadier General, when he left the revolutionary army, still professed himself a citizen of the United States, and claimed the confidence and trust of his fellow-citizens of Kentucky as their representative in the political conventions of that harrassed and embarrassed colony of Virginia.

This perfidy, under so fair an exterior, most prepossessing manners and undoubted talents, is sickening enough; still of Wilkinson's conduct to the Kentuckians it is but another thread in the web of treachery and corruption. They confided, almost spontaneously, in the honor of a revolutionary officer; they were panting for the enjoyment of the navigation of the Mississippi, to save the produce of their labor from rotting in their hands; they were oppressed and harassed by Indian depredations; Wilkinson readily offered himself to try and procure the one, and to protect them from the other. He risked his life gallantly and successfully against the savage enemies of the country; and he professed to have procured from the Spanish government, at New Orleans, commercial privileges, without intimating, in the slightest degree, that it was corruptly done, and for the purpose of separating them from the sacred league of the States. Yet while apparently exerting himself most strenuously for the western enjoyment of the navigation of the Mississippi, urging its importance on the minds and hearts of the people with all his address and literary qualifications, pouring into their memorials the most impassioned appeals, he was countermining himself with the governor of Louisiana, in the following manner.

At first, Gardoqui, the Spanish minister near the United States, through an agent sent to Kentucky, was using every means to persuade the people to migrate to Louisiana, by promising lands without price, and liberty to import into New Orleans "property of any kind on paying a duty of 25 per cent."† This duty of importation was further reduced by Miro "to 15 per cent., which he reserved to himself the right of reducing, as he might please, on behalf of such men of influence among them [meaning the western people, and particularly the people of Frankland and Cumberland, now the State of Tennessee,] "as might solicit that favor."‡

* Idem, 284.
† Idem, 197.
‡ Idem, 200.

It may be well to notice that on the 12th of September, 1788, John Sevier, who had been the governor of the new and revolutionary State of Frankland, had written to Don Gardoqui "to inform him that *the inhabitants of Frankland were unanimous in their vehement desire to form an alliance and treaty of commerce with Spain and put themselves under her protection.*"* The terms of this alliance were formally drafted by the minister, but rather coquetishly waved by Gov. Miro. "Should they succeed," says the governor, "in securing their independence from the United States, then his Majesty would grant them out of his royal beneficence all the power, help and advantages which might be adapted to their condition, and compatible with the interests of the Spanish monarchy."† But while Miro was pursuing this policy, in order to avert the hostility of the western people of the U. States from the Spanish possessions, and Wilkinson was urging in Kentucky with artifice of eloquence and intrigue the natural rights of the western people to the navigation of the Mississippi, this same Wilkinson was remonstrating with the Spanish governor against his indulgences and accommodations granted to the western trade. On the 26th of January, 1789, Wilkinson wrote Miro as follows: "The general permission to export the products of this country [meaning the western country of the United States] through the Mississippi river, on paying a duty of 15 per cent., has worked the consequences which I feared, because every motive of discontent having been thus removed, the political agitation has subsided, and to-day there is not *one word said about separation.* Nor are the effects produced by this *pernicious* system less fatal to our plan of fostering emigration to Louisiana. Every year the inhabitants and landholders of these parts had ever present to their minds the terrible prospect of seeing their produce perish in their hands for want of a market; but now they no longer have any such apprehensions on account of the ready outlet they find at New Orleans for the fruits of their labor, which circumstance has diffured universal satisfaction in this district." Again, "the pruriency of emigration has been soothed and allayed by the spirit of trade which engrosses general attention, and there are many at this moment who are preparing cargoes for New Orleans, and who, under the pretext of settling in Louisiana, will procure to elude the payment of the aforesaid duty."‡ This is the conduct of one who professed to "abhor all duplicity!" to regret being "obliged to dissemble!" A Kentucky advocate for the navigation of the Mississippi, and a Spanish pensioner urging the governor of Louisiana by the most pressing motives of policy to prohibit that navigation!

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* Idem, 257.

† Idem, 260.

‡ Idem, 277, 278.

An old soldier of the American republic eager to avow himself a vassal of his Most Catholic Majesty and a good Spaniard! A confidential officer of the United States, in 1798, attempting to negociate through Dan. Clark, Jr., for Gov. Gayoso's plantation near Natchez for $10,000! All this, however, is alleged to be an adjustment of ancient balances in his favor on the tobacco contract with Gov. Miro. After this exposure of rank corruption, what may not be *suspected* of Wilkinson's connection with Aaron Burr, in 1806? He who could deceive Washington and Jefferson, and betray his friends and associates in Kentucky, was quite equal to deceive Burr, and then to betray him by a double treason, first to his country, and then to his friend.

But this work of M. Gayarre through which the American public has been gratified by this contribution to their history, has not yet received the notice which my high admiration demands for its spirit so purely patriotic and nobly republican from a descendant of La Belle France; its laborious authenticity derived from original materials, enlivened by a style clear and perspicuous. There is throughout this work a con amore spirit, a sympathy with the fortunes and fame of the country, which could alone flow from the heart of a creole, a native of the soil.

The public will look with high literary and patriotic sympathy to the future labors of so earnest and faithful a contributor to our history. It is said that this polished scholar is engaged in developing the conspiracy of Burr. Do the Spanish archives (copies of which concerning Louisiana are deposited at Baton Rouge,) throw any light on this other mystery of western history? The present writer was a witness to much of this affair in Kentucky; he has exerted no little pains to penetrate the secrecy of this strange movement amidst the overflowing prosperity of the West. Not however, much to his satisfaction; he will, however, say that the memoir of Davis, in his Life of Burr, is a most artful and unfair work, a disguised eulogy on his subject; almost ignoring the probabilities against the innocence of his friend. Yet it refrains from openly assailing the antagonists of Burr, while it leaves everything to implication. The public must look with impatience for M. Gayarre's labors on this obscure, yet interesting branch of American story.

COMMERCIAL DEPARTMENT.

Commerce of Chicago

The annual increase in the receipts of leading staples at Chicago, for a few years past, indicate a commercial growth which is perhaps unparalled in the history of cities. Though this increase has been greatly accelerated by the opening of several important railways, and may not continue long at the same ratio, yet Chicago is destined to become one of the great commercial cities of the continent. She is located in the heart of a great cereal and meat growing region, and possesses facilities of transportation which enable the dealers in those commodities at all times, to chose between the eastern and southern markets, according to the inducements offered by the one or the other. The lumber trade of Chicago is another important element of her commerce, and it is not improbable that when the mineral wealth of Lake Superior is developed, she will become one of the great metal markets of the Union.

The growth of Chicago has been regarded by some as calculated to detract from the commercial prosperity of St. Louis, but we are persuaded that the fears and the hopes of those who view the subject in this light, are without foundation. In one sense, St.Louis and Chicago may be rivals; but it will always be a rivalry which will promote the interest of both, and be of advantage to the country. If St. Louis is destined to be a city of the first magnitude, her commerce must extend over [not monopolize] the great basin of the St. Lawrence, at least so far down as to include Canada West; and it is obvious that the growth of Chicago will be the surest means of drawing the trade of the lake region in this direction. Without a great commercial city near the southern end of Lake Michigan, St. Louis could never expect to carry on any considerable amount of trade with the lake region. Should Chicago continue to grow, she will soon become the best customer that St. Louis will have, and abundantly compensate the latter for any trade drawn eastward from the valley of the upper Mississippi.

It is generally conceded that Chicago and St. Louis are each destined to become great commercial centers, the one representing the basin of the St. Lawrence, and the other the valley of the Mississippi. And in view of these facts, we venture the prediction that the time will come when the business of the Michigan and Illinois canal, if sufficiently enlarged, will be at least equal to that connecting the lakes with the city of New York.

It would be unreasonable for the friends of St. Louis, to expect to monopolize the entire trade of the upper Mississippi. That is debatable ground between the South and the East, and the commerce of that region will take the direction which is most conven-

ient and profitable to the country. St. Louis is the natural direction for the agricultural products of that region, but without a railroad running parallel with the Mississippi, it may be doubted whether she will get her fair proportion. But with such a work, completed to St. Paul, and the obstructions to the navigation of the Mississippi removed, St. Louis would have no just cause to complain of the loss of any trade which might be diverted to Chicago.

We copy the following tables from the "Annual Review of the Commerce, Manufactures, and Public and Private Improvements of Chicago, for the year 1854."

RECEIPTS OF FLOUR, for three years.

	1852.	1853.	1854.
By Lake.....bbls.	2,875	2,265	5,158
" Canal..... do.	1,846	7,223	17,623
" Galena R. R. do.	44,316	30,702	62,915
" Mich. S. do. do. }			963
" Mich. C. do. do. }	4,300	7,411	2,036
" Rock Is. do. do.	.....	.....	68,751
" C. & M. do. do.	.....	.....	1,129
Manufac. in the city, do.	70,979	82,883	66,000
Total.....	124,316	131,130	224,575

SHIPMENTS OF FLOUR, for two years.

	1853.	1854.
By Lake.....bbls.	70,986	58,573
" Canal..... do.	1,107	520
" Galena Railroad..... do.	445	3,394
" Mich. S. do. .....do. }		27,365
" Mich. C. do. .....do. }	661	15,476
" Rock Is. do. .....do.		457
" Ill. Cent. do. .....do.	988	1,736
" Ill. & Wis. do. .....do.	.....	96
" C, & Miss. do. .....do.		10
City consumption and balance on hand.....do.	56,940	116,948
Total.....	131,130	224,575

SHIPMENTS OF FLOUR, by lake, for eleven years.

Years.	Bbls.	Years.	Bbls.
1844.....	6,320	1850.....	100,871
1845.....	13,752	1851.....	72,406
1846.....	28,045	1852.....	61,196
1847.....	32,538	1853.....	70,984
1848.....	45,200	1854.....	58,573
1849.....	51,309		

PRICES of FLOUR for Four years.

	1851.	1852.	1853.	1854.
January...	$2.75@4.50	$2.25@4.00	$3.50@4.00	$5.00@5.50
February...	2,75—4.50	2.25—4.00	4.00—5.00	6.25—6.75
March.....	3.00—5.00	2.50—4.25	3.50—4.75	6.75—7.25
April.....	3.00—4.50	2.25—4.00	3.25—4.50	6.75—7.25
May.....	3.00—4.25	2.25—4.00	3.50—4.75	6.75—7.25
June.....	3.00—4.25	3.00—4.25	3.50—4.75	7.25—7.75
July.....	3.00—4.25	2.25—4.00	3.50—4.75	7.75—8.25
August.....	2.25—4.25	2.50—4.00	3.75—4.75	7.25—7.75
September.	2.25—4.25	2.50—4.00	3.50—5.00	7.75—8.25
October....	2.25—3.75	2.75—4.75	5.25—6.25	7.75—8.25
November..	2.25—3.75	2.75—4.75	4.75—5.75	7.25—7.75
December ..	2.25—3.75	3.25—4.75	4.50—5.50	7.25—7.75

RECEIPTS OF WHEAT, for three years.

		1852.	1853.	1854.
By Lake.....	bush.	129,251	62,031	12,279
" Canal.....	do.	108,597	352,103	1,066,194
" Galena R. R.....	do.	504,996	901,366	1,391,163
" Mich. S. R. R.....	do.			3,835
" Mich. C. R. R.	do.	13,903	15,081	4,300
" Rock Island R. R.....	do.	.....	44,115	293,270
" Ill. Cent. R. R.....	do.	.....	14,789	30,352
" Ill. & Wis. R. R.	do.	.....	.....	36,123
" C. & Miss. R. R.....	do.	.....	.....	1,379
" Teams	do.	180,749	297,980	200,000
Total.....	do.	937,496	1,687,465	3,038,955

SHIPMENTS OF WHEAT, for three years.

		1852.	1853.	1854.
By Lake.....	bush.	635,196	1,206,163	1,650,489
" Canal	do.	807	1,618	863
" Galena U. R. R.....	do.	.....	.....	3,358
" Mich. S. R. R.	do.			125,127
" Mich. C. R. R.	do.	.....	102,267	325,976
" Rock Is. R. R.	do.	.....	.....	248
" Ill. Cen. R. R.	do.	.....	.....	44
" C. & Miss. R. R....	do.	.....	.....	620
Floured by C. Mills.....	do.	288,493	372,748	330,000
Used by Distillers.....	do.	13,000	3,000	.....
Shipped, consumed, on hand & uncounted for	do.			402,230
Total.....	do.	937,496	1,685,796	3,038,955

SHIPMENTS OF WHEAT, by lake, for thirteen years.

Years	Bush.	Years.	Bush.
1842	586,907	1849	1,936,264
1843	688,967	1850	883,644
1844	891,894	1851	437,660
1845	926,860	1852	635,496
1846	1,459,594	1853	1,206,163
1847	1,974,304	1854	1,250,489
1848	2,160,800		

PRICES OF WHEAT, for three years.

	1852.				1853.				1854.			
	Spring.		Winter.		Spring.		Winter.		Spring.		Winter.	
January	31@42		50@65		70@76		78@86		92@95		106@115	
February	37	45	50	70	65	66	75	85	117	120	130	140
March	35	45	60	72	60	70	70	85	104	106	120	130
April	34	40	60	70	55	65	70	80	100	100	112	120
May	34	40	62	72	60	66	80	90	125	130	140	150
June	34	40	68	76	66	79	73	90	128	130	140	150
July	37	39	68	76	66	75	78	90	95	100	115	120
August	40	43	65	70	80	82	80	96	95	110	140	150
September	44	50	69	75	65	82	80	90	100	120	130	140
October	48	56	60	72	94	100	100	113	90	105	130	140
November	55	60	66	75	85	90	95	105	120	125	130	145
December	56	60	70	80	85	90	95	100	100	110	112	125

RECEIPTS OF CORN, for three years.

		1852	1853.	1854.
By Lake	bush.			1,080
" Canal	do.	1,810,830	2,481,334	4,396,995
" Galena R. R.	do.	671,961	228,505	2,038,743
" Mich. S. do.	do.			.....
" Mich. C. do.	do.	.....	1,823	328
" Rock Is. do.	do.	.....	17,862	564,757
" Ill. Cen. do.	do.	.....	3,595	229,566
" Ill. & Wis. do.	do.	.....	.....	56,574
" C. & Miss. do.	do.	.....	.....	1,982
" Teams	do.	508,220	136,220	200,000
Total	do.	2,991,011	2,869,339	7,490,753

SHIPMENTS OF CORN, for two years.

		1853.	1854.
By Lake	bush.	2,739,552	6,626,054
" Canal	do.	.....	1,725
" Galena Railroad	do.	.....	13,305
" Mich. Southern R. R.	do.	.....	12,812
" Mich. Cent.	do.	40,676	184,003
Ground at City Mills	do.	.....	18,500
Used by Distillers	do.	81,000	100,009
On hand, consumed and uncounted for	do.	8,111	534,354
Total	do.	2,869,339	7,490,753

PRICES OF CORN, for three years.

Per bushel of 60 lbs.

	1852.		1853.		1854.	
January	26@	28	49@	55	33@	40
February	31	34	38	41	45	46
March	33	34	40	45	49	50
April	33	34	36	40	43	44
May	33	34	40	46	43	45
June	36	37	45	50	45	46
July	32	33	47	50	50	51
August	42	43	58	65	54	55
September	50	52	56	60	60	61
October	50	53	54	55	54	55
November	48	50	48	50	50	52
December	56	58	47	48	46	47

SHIPMENTS OF CORN, by lake, for eight years.

Years.	Bush.	Years.	Bush.
1847	67,315	1851	3,221,317
1848	550,460	1852	2,757,011
1849	644,848	1853	2,729,552
1850	262,013	1854	6,626,054

RECEIPTS OF OATS, for three years.

		1852.	1853.	1854.
By Lake	bush.			66
" Canal	do.	833,703	971,350	1,566,330
" Galena R. R.	do.	674,931	472,829	1,772,659
" Mich. S. R. R.	do.	.....		.....
" Mich. C. R. R.	do.		273	.....
" Rock Is. R. R.	do.	.....	11,810	259,371
" Ill. Cen. R. R.	do.	.....	16,779	118,012
" Ill. & Wis. R. R.	do.	.....	.....	77,792
" C. & Miss. R. R.	do.	.....	.....	155
" Teams	do.	581,297	402,729	400,000
Total	do.	2,089,941	1,875,770	4,194,385

SHIPMENTS OF OATS, for two years.

		1853.	1854.
By Lake	busd.	1,633,842	2,959,715
" Canal	do.	483	1,003
" Mich S R R	do.		39,733
" Mich C do	do.	114,169	229,469
" Ill C do	do.	.....	67
Cons'd, on hand & uncounted for	do.	127,276	964,398
Total	do.	1,875,770	4,194,385

SHIPMENTS OF OATS, by lake, for eight years.

Years.	Bush.	Years.	Bush.
1847	38,892	1851	605,827
1848	65,280	1852	2,030,317
1849	26,849	1853	1,633,842
2850	258,084	1854	2,959,715

RECEIPTS OF RYE, for two years.

		1853.	1854.
By Lake	bush.	22	.....
" Canal	do.	3,948	5,129
" Galena Railroad	do.	76,676	69,683
" Rock Island do.	do.	517	5,751
" Ill. Central do.	do.	635	432
" Ill. & Wisc. do.	do.	.....	696
" Teams	do.	4,364	4,000
Total	do.	86,162	85,691

RECEIPTS OF BARLEY, for there years.

		1852.	1853.	1854.
By Lake	bush.	1,687	1,576	26,103
" Canal	do.	8,785	25,610	641
" Galena Railroad	do.	95,243	135,429	143,340
" Mich. S. do.	do.	.....	.....	203
" Mich. C. do.	do.	.....	.....	219
" R. Is. do.	do.	.....	972	958
" Ill. C. do.	do.	.....	.....	94
" Ill. & Wis. do.	do.	.....	.....	206
" Teams	do.	21,313	28,800	30,000
Total	do.	127,028	192,387	201,764

TOTAL RECEIPTS OF FLOUR AND GRAIN in 1854.

Wheat, bushels	3,038,955
Corn	7,490,753
Oats	4,194,385
Rye	85,691
Barley	201,764
	15,011,540
Flour [158,575 bbls] into Wheat	792,875
Total	15,804,423

	Hogs cut.	Av. weight.	Total weight.
1851–'2	22,036	238½	5,247,278
1852–'3	48,156	215¾	10,192,972
1853–'4	52,849	249½	13,188,815

The following shows the number of Hogs received during the packing season of 1853–4, and the sources from which they came:

Chicago ane Galena Union Railroad	45,779
Chicago and Rock Island Railroad	14,225
Illinois Central Railroad	1,242
Michigan Central Railroad	387
By Teams and on foot, to be slaughtered in city	12,347
Total	73,980

They were disposed of as below:

Packed in city	52,849
Shipped East by Mich. Central Railroad	9,782
do. do. do. Southern do.	846
Sold in city	10,503
Total	73,980

BEEF.—Comparative business of the four past packing seasons:

	No. Cattle.	Av. weight.	Total weight, lbs.	Bbls. packed.
1851	21,806	.....	.....	.....
1852	24,663	542	13,367,346	46,395
1853	25,435	563	14,319,905	57,500
1854	23,691	565	13,402,223	54,108

RECEIPTS OF LUMBER, LATH AND SHINGLES, for eight years.

	Lumber.	Shingles.	Lath.
1847	32,118,225	12,148,500	5,655,700
1848	60,009,250	20,000,000	10,025,109
1849	73,259,553	39,057,750	19,281,733
1850	100,264,779	55,423,750	19,809,700
1851	125,056,437	60,338,250	27,583,475
1852	147,816,232	77,080,500	19,759,670
1853	202,101,098	93,483,784	39,133,116
1854	228,336,783	28,061,250	32,431,550

SHIPMENTS OF WOOL, for thirteen years.

1842	lbs. 1,500	1849	520,242
1843	22,050	1850	913,682
1844	96,635	1851	1,088,553
1845	216,616	1852	920,113
1846	281,222	1853	953,100
1847	311,889	1854	536,791
1848	500,000		

RECEIPTS OF LEAD, for two years.

		1853.	1854.
By Lake	lbs.	108,150	140,000
" Canal	do.	1,206,604	35,463
" Galena Railroad	do.	1,859,009	4,051,346
" Rock Island do.	do.	.....	14,455
" C. & Miss. do.	do.	.....	5,864
Total	do.	3,253,763	4,347,128

DEPARTMENT OF INTERNAL IMPROVEMENTS.

North Missouri Railroad.

REPORT OF THE PRESIDENT AND DIRECTORS OF THE NORTH MISSOURI RAILROAD.

To the Stockholders of the North Missouri Railroad Company:

In compliance with the requirements of our charter, the Directors of the North Missouri Railroad Company submit to you the following report:

When the present Directory, who were elected on the 3d day of April, 1854, assumed the duties devolving on them, they found that their predecessors, who had come into office with the first organization of the Board, on the 11th day of June, 1853, had caused to be made most of the surveys deemed necessary for a proper location, and that various ineffectual efforts had been made by them to close a satisfactory contract for the construction of the road. These efforts were at once renewed by the present Directory, and on the 15th day of May, 1854, was made the now existing contract with Messrs. Sanger, Stewart & Truesdall, for "grubbing, clearing, grading, masonry, bridging trustle work, furnishing cross ties, track laying, and fencing, and all the work necessary to compleet the road-bed and superstructure" of the road, from the city of St Louis to the point of intersection with the Hannibal and St. Joseph Railroad, a distance of one hundred and sixty-seven and a half miles. The whole work is eontracted for by items, each having its specific price annexed and agreed upon. By the terms of the contract, the work is to be completed from St. Louis to St Charles, by the 17th day of May, 1855, and to the above-mentioned terminus limited in their undertaking by the first day of September, 1856. Payment is to be made as the work progresses, for the work actually done and the material furnished.

The contractors' compensation is to be appropriated out of the means of the Company as follows:

$1,500,000	of the	bonds of	the	State of Missouri.
375,000	do	do	do	City of St. Louis.
375,000	do	do	do	County of St. Louis,
375,000	do	do	do	Cash.

300,000 Capital Stock of the Company, and the remainder in bonds of the North Missouri Railroad Company, having twenty years to run, bearing interest at the rate of seven per cent, payable semi-annually in the city of New. York, and convertible within five years from the date of their issue into stock of the Company, at the option of the holders. All of these bonds, whether of the city, county, State, or Company, are to be taken at par valuation.

The Company has to furnish the iron for the track of the road, and the rolling stock to equip it, erect the machine shops and depots, and purchase the grounds necessary for them and for the right of way.

The machine shops will be located on lands purchased of Messrs. O,Fallon, Kennett and How, for that purpose, immediately east of the Bellefontaine Cemetery. The depot for the city of St. Louis will

be situated on block No. 298, fronting on North Market and Second street.

The titles for right of way from St. Louis to St. Charles have, with few exceptions, been perfected in the Company, with all the prudence and care it was possible to exercise, the Company has in some instances been compelled to submit to exorbitant and unjust exactions at the hands of men who seemed actuated by no other feeling than that having the power to obtain damages they must have the utmost farthing that could be extracted, although they well knew either that they were not injured at all, or that the benefits to be derived would far exceed the injury to be sustained by them. We are happy to say, however, that these cases were but few, and confined chiefly to proprietors within the vicinity of St. Louis.

Our land Agent, Ewd, A. Lewis, Esq., is now engaged in obtaining the right of way and perfecting the land titles of the Company through St. Charles county, and will, as soon as he has completed the work in that county, continue his labors through the counties successively along the line of the road to the northern boundery of the State.

When the time arrived for finally locating the road, there existed among the Directors a diversity of opinion as to which of the principal routes examined should be adopted, and which are shown on the accompaning map submitted by the Chief Engineer, marked as the "Direct," "Central" and "Ridge Routes."

The direct route for many reasons, seemed to be the most desirable, being, as compared with the Ridge route, twenty eight and a half miles shorter, and costing $408,100 less; and, as compared with the Central route, being fifteen miles shorter and costing $1,186,000 less; but the adoption of this route, upon full examination and careful deliberation, was considered totally unauthorized by the charter, which required that the road should be so located as to pass "as near as practible, or as may be, along the dividing ridge or plain of country which seperates the tributaries of the Mississippi and Missouri rivers, to the northorn boundery line of this State." As between the other two, the Central was found to be thirteen and a half miles shorter and would cost about $778 000 more than the Ridg route. In consideration of the great advantages always derived from shortness and directness in railroads, the central route was adopted, This was deemed by a majority of the Directory to be in substantial compliance with the charter. But in a short time after this action was had, tho Governor of the State visited St; Louis and attended a meeting of the Board of Directors, especially convened to cofer with him. On that occasion His Excellency informed the Board that this location, in his opinion, did not comply with the charter, and that consequently he would feel compelled to wihhold the credit of the State from the road as located. He thought, however, that the location, as far as the town of Mexico in Audrain county, was consistent with the terms of the charter. Upon this decision of the Governor being made known, the Board determined to reconsider the location, which was thereupon fixed only as far as Mexico. Shortly subsequent to these proceedings, a letter was received from Hon. James S. Rollins, proposing to raise an additional supscription of $450,000, conditioned upon the adoption of the Ridge route. The inducement offered by

the proposition, taken in connection with the reduction of $778,000 in the cost of construction, together with the Governor's decision, led the Board to adopt, on the 16th day of october, 1854, the following resolution, viz. "That the Ridge route be adobted as the location of the North Missouri Railroad, provided the people and the counties along the line subscribe $450,000 worth of stock by the first day of January next, in addition to that subscribed by the counties of St, Charles, Warren and Montgomery." The time limited in the foregoing resolution for obtaining the additional subscription was by a subsequent resolution extended to the first day of May ,1855.

Of the subscription thus proposed by Mr. Rollins, there has been reported as subscribed the sum of $425,000, From the foregoing statement it will be seen that, however desirable the other route may have been, necessity demanded the location finally made. It is believed that no true friend of the enterprise can complain of this action of the Directory upon a fair consideration of the circumstances which led to it.

By reference to the report of the Chief Engineer, which accompanies this, it will be seen that the total cost of the road from the city of St. Louis to the Iowa State line, a distance of 228 6-10 miles, is estimated at $9,091,265 25. To meet which the means thus far placed at the disposal of the Company are as follows:

STOCK SUBSCRIPTIONS.

City of St. Louis, payable in bonds, - - - -	$500,000
County of St. Louis, payable in bonds, - - - -	500,000
Individual subscriptions in St. Louis County, - -	115,800
Stock subscribed by contractors, - - - - -	300,000
St. Charles County subscription, payable in cash, -	100,000
Individual subscriptions in same county, - - -	36,200
Warren county subscription, payable in cash, - - -	50,000
Individual subscriptions in same county, - - -	9,300
Indsvidual subscriptions in Montgomery county, - - -	15,200
Individual suhscriptions in Colloway county, - - -	4,100
Individual subscriptions in Boone county, - - - -	200
Individual subscriptions in Audrian county, - - -	1,800
Individual subscriptions in Monroe county, - - -	300
Individual subscriptions in Randolph county, - -	11,800
Individual subscriptions in Adair county, - - - -	400
Add State credit, - - - - - - - -	2,000,000
Add subscriptions under Mr. Rollins' proposition, - -	450,000
	$4,095,000
To this sum may be added - - - - - - -	150,855
Total, - - , - - - - - -	$4,245,855

This last sum of $150,855 is the amount which it is estimated the contractors will be required to take of the convertible bonds of the Company under their contract to build the road from St. Louis to the Hannibal and St. Joseph Railroad.

In addition to the foregoing amounts it is understood that Montgomery county has voted to subscribe fifty thousand dollars, which will increase the total amount to $4,295,855.

Deduct from the cost of the road the means above estimated and it will leave a deficit of $4,795,410 25, which will be necessary for the completion of the road. How is this deficit to be supplied? Assuming that we may obtain additional aid in the shape of State credit to the amount of $1,000,000, there still remains $3,795,410 25 to be provided for. As much as possible of this sum must be raised by additional stock subscriptions in the counties along the line of the road, and the remainder, so far as we are able at present to perceive, will have to be procured by a loan or loans upon such security as the Company will be able to offer after all these means shall have been expended. It is obvious that the greater the amount of the stock subscriptions, the less will be the loan required, while the value and extent of the security we can offer will at the same time be correspondingly increased in inverse ratio. When it is remembered that the terms of a loan are necessarily regulated by the amount loaned and the extent of the risk, relatively considered, it will be seen that upon the amount of additional stock subscriptions it depends whether we will have eventually to make great sacrifices in order to command the possibility of ever completing the road.

This consideration appeals with great force both to the present stockholders and to those non-subscribing counties and individuals who are so vitally interested in the speedy completion of the work. To the former, for a renewed activity in advocating the claims of our enterprise, and to the latter for lessening, by comparatively small sacrifices on their part, the delays and difficulties of its consummation.

With regard to another loan of the State's credit, it is thought that we may obtain it free from any condition of additional stock subscriptions, but with a requirement that the money provided therefrom shall be expended under the supervision of persons to be appointed by the Governor or Legislature for that purpose. If, together with this aid, the State will releace her first lien upon the road and its material, and authorize the company to issue its bonds secured by mortgage upon the same property, we may then see our way clear for a completion of the work to the Iowa State line, and this, in all human probs ability, within three years from the present time. Without such a release, it would be idle to talk of borrowing money on the credit of the road. Capital is timid, and requires undoubted evidence of security to invite its investment. Eastern or European capitalists could never be expected to lend us money upon a second or remote security which our own State had refused to recognize as sufficient for her loan of credit. We would have to say to them in effect, we want your money; but although the State of Missouri, which is deeply interested in the successful prosecution of our work, has declined to consider any thing less than a first lien as reliable security, yet we must ask you, who have no such interest whatever at stake, to treat us with greater liberality.

It has been the settled policy of the present directory to avoid squandering its resources by commencing the work at various points along the line—a course which might exhaust our present means without completing any portion of the road—but only to commence such work as they felt confident of being able to complete, so that if we should fail to obtain means to finish the whole road, the means of the Company as far as expended would be available.

We think that, without allowing our judgments to be blinded by partiality, we may well consider the enterprise in which we are engaged as of more real importance to the interests of the State of Missouri and to the city of St. Louis than any other now in progress. We would call your special attention to that part of the Chief Engineer's report, with the accompanying map, which exhibits the number of railroads tapping the resources of the State of Missouri and Iowa on the east side of the Mississippi, thus inviting to the markets of Chicago and the Atlantic cities a trade which properly belongs to Saint Louis. You will then perceive that of these roads there are completed, or in course of rapid construction, not less than five roads, already laying their iron grasp upon our trade, with the certainty of completely carrying it away unless we can effect a diversion by offering a market nearer and more cheaply to be attained by the North Missouri Railroad.

In order to reach Chicago, the trade of the Desmoine Valley has now to pass over say three hundred and fifty miles of railroad, thence during the summer months it may be taken by vessels to Buffalo, and thence by railway to New York, But from the first of November util the first of May, the period during which the summer's products are made ready for transportation, lake navigation is closed, so that tho whole distance ta market must be traveled by railroad. The distance by railroad, from the Mississippi river to New York, is fourteen hundred and ninety five miles: to Boston, fifteen hundred and eighty miles; to Philadelphia, thirteen hundred and fifty miles and to Baltimore, twelve hundred and forty miles. From the various points in Iowa, Fort Desmoines, Oskaloosa, and Ottumwa, the average distance to Chicago is three hundred and fifteen miles, and so to St. Louis via the North Missouri Railroad, is two hundred and ninety-nine miles. Let us suppose the North Missouri Railroad in practical operation. Is it easy to imagine the products of Minnesoto, Iowa, Missouri, seeking a distant market on the Atlantic sea-board, when a home market, as it were, would then be opened to them in St. Louis? On the other hand, if no such market is made attainable by some such channel as our enterprise contemplates, St. Louis may as well contentherself to be deprived of this immense trade for ever. Let the various roads above alluded to, be once completed, and an established channel eastward will defy all attempts to divert the current of trade in any other direction. Hence arises the incalculable importance to St. Louis, and to the State of which she is the commercial metropolis, of a speedy completion of the North Missouri Railroad. We solicit your especial attention to the remarks and illustrations of our Chief Engineer upon this interesting topic.

We beg leave also to ask your careful attention to the Chief Engineer,s estimate of the propable amount of business to be done by our road. It is based upon statistics compiled from reliable sources, exhibiting the products, the ratio of population to area and the oggregate population of the counties through which the road will pass from the city of St. Charles to the point of intersection with the Hannibal and St. Joseph Railroad. Stock holders and others interested will from it perceive that if the road was this day in operation, with only the population and products of 1855, that the portion of the road from St.

Charles to the Hannibal and St. Joseph Railroad would of itself yield a net profit of nearly eleven per cent, per annum on the cost of the construction of the road from the city of St. Louis to the Hannibal and St. Joseph ,Railroad, and on the cost of the construction of the whole road of about seven per cent, per annum. But as the work progresses, the population and products of the counties through which it will pass must largely increase, both from the natural causes which have hitherto operated and from the additional impetus to be given by the construction of our railroad.

The actual prospects of the road, then, in the first year of its operation must very materially exceed the results shown by the estimate of our Chief Engineer. No estimate of profits was made for the business arising either on this side of St. Charles, or beyond the Hannibal and St. Joseph Railroad, as the estimate given is deemed sufficient to illustrate the general promise of success which is offered by our whole enterprise. The rapid increase of population in Macon, Adair, and Schyler counties will beyound a doubt, by the time the work approaches them, render that division of the road fully as remunerative as those south of it—to say nothing of additional causes operating still more largely in their favor in the rapid construction of numerous railroads leading towards them, in the State of Iowa.

The report of the Treasurer which accompanies this will inform you of the whole amount of receipts and expenditures of the Company, from its first organization to the present time. It is to be observed that the expression "capital" therein represents only the amount of stock subscriptions, without including either the subscriptions of $450,000 proposed by Maj. Rollins, or the loan of State credit.

All of which is respectfully submitted, by order of the Board of Directors. ISAAC H. STURGEON, Pres't

PINE BLUFF AND NAPOLEON RAILROAD.

We admire the spirit manifested by the planters of the lower Arkansas in respect to the construction of a railroad from Pine Bluff to Napoleon. They have adopted the best of all plans of building railroads, especially such as are designed chiefly to accommodate the immediate country through which they pass. It has occurred to us how easy it would be for the wealthy population of the counties north of the Missouri river to construct a railroad from Weston to some point on the North Missouri Railroad if they would resolve to follow the example of the Arkansas Planters. The location of the two districts of country in reference to commercial facilities are similar, and we publish the following extract from the *Pine Bluff Republican* of April 21st, for the benefit of our Missouri friends.

PINE BLUFF AND NAPOLEON RAILROAD GOING AHEAD!

We learn from Maj. W. G. Crawley, who arrived at home on last Thursday, that Capt. Tilghman and Dr, Lee, have let out to good responsible contractors, the clearing and grading of the first fifty miles of the road, and that the gentlemen taking the contracts receive pay in stock to the amount of their work. Capt. T. has now a propositoin to take the other 7½ miles, which completes the whole route from Pine Bluff to Napoleon,

The persons taking the contracts, are Judge W. R. Anderson, Calvin Stroud, Mrs. Sexton, J, C. Corrol, Maj. Mc,Neill, G. B. Watson, Col. Jas. Branch, Col. F. Holmes, Col. N. B. Burrow and Thos. Martin; all of Desha; and Col. Jo. Branch, Gen. S. Mitchell, Col. Jas. Smith, A. Douglass, R. H. Duglass, Thomas Douglass, W. H. Davidson, all of Arkansas county.

These gentlemen are all known to be reliable and fully able to discharge their contracts. In this respect there is none that stand higher.

This is glorious news and will be hailed by every one, who feels the least interest in the Arkansas valley, as a brilliant event in the history of this road. The building of this road from Pine Bluff to Napoleon, is now a "fixed fact."

The clearing and grading of the road thus taken in stock, the $295,000 subscribed in money, and the donation of 100 acres of land at Napoleon, and 67½ acres at this plac,gives the stock of this company a premium value over the stock of any other road in this State, with all their boasted abilities and magnificent donations.

Every land-holder along the entire line of the road, has granted the right of way. The road is on an air line, with a grade of one foot and one-tenth to the mile.

We'll go a wager that the cars will run the first 60 miles of road in the State between Pine Bluff and Napoleon, and that they will go faster and carry more freight than any of the other Arkansas roads.

Mississippi Valley Railroad North.

We are pleased to learn that the people of North-east Missouri are making a spirited movement in respect to this important enterprise. It has become evident since the location of the North Missouri railroad that a line of railway located nearer to and running parallel with the Mississippi, is necessary as a part of our system of improvement north of the Missouri river. And the extension of this line, as a trunk line, through Iowa and into the heart of Minnesota, forming a connection with the west end of Lake Superior, is a project which should be constantly kept in

view by the inhabitants of the Mississippi Valley, from St. Anthony to New Orleans.

We admit that the prospect of raising the means necessary to prosecute so great a work, is not encouraging at the present time; but it is not too soon to establish an efficient organization. For it will require from one to two years to prepare for the commencement of the work, and we are persuaded that by that time means will be more easily obtained for such objects than they have been for some time past. It is the true policy of the friends of the work to be ready to avail themselves of the facilities which may be afforded by the first decided reaction in the financial condition of the country.

The project is one which commends itself to the respect and attention of capitalists, and if well gotten up and managed, must succeed in time even without the aid of the State.

The Reciprocity Treaty between the United States and the United Kingdom.

This treaty between the United States of America and her Majesty the Queen of Great Britain and Ireland, was concluded and signed by the respective Plenipotentiaries of the two Governments on the fifth day of June, 1854. It was duly ratified on both parts, and the respective ratifications exchanged at London, on the 18th day of August, 1854, by James Buchanan, Esq., Envoy Extraordinary and Minister Plenipotentiary of the United States to Great Britain, and the Earl of Clarendon, her Britannic Majesty's Provincial Secretary of State for Foreign Affairs, and exchanged on the 9th day of September, at Washington, by Wm. L. Marcy, Secretary of State, and John F. Crampton, her Majesty's Minister to the United States. On the 11th day of September, 1854, it was made public by Franklin Pierce, President of the United States. The treaty, which is now in force, is "word for word" as follows :

PROCLAMATION BY THE PRESIDENT OF THE UNITED STATES.

The Government of the United States being equally desirous with her Majesty the Queen of Great Britan to avoid further misunderstanding between their respective citizens and subjects in regard to the extent of the right of fishing on the coasts of British North America secured to each by article 1 of a Convention between the United States and Great Britain, signed at London on the 20th day of October, 1818; and being also desirous to regulate the commerce and

navigation between their respective territories and people, and more especially between her Majesty's possessions in North America and the United States, in such manner as to render the same reciprocally beneficial and satisfactory, have respectively named Plenipotentiaries to confer and agree thereupon—that is to say, the President of the United States of America, William L. Marcy, Secretary of State of the United States; and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, James, Earl of Elgin and Kincardine, Lord Bruce and Elgin, a peer of the United Kingdom, knight of the most ancient and most noble Order of the Thistle, and Governor-General in and over all her Britannic Majesty's provinces on the continent of North America and in and over the island of Prince Edward—who after having communicated to each other their respective full powers, found in good and due form, have agreed upon the following articles:

Article 1. It is agreed by the high contracting parties that, in addition to the liberty secured to the United States fishermen by the above-mentioned Convention of October 20, 1818, of taking, curing, and drying fish on certain coasts of the British North American colonies therein defined, the inhabitants of the United States shall have in common with the subjects of her Britannic Majesty, the liberty to take fish of every kind,except shell fish, on the sea-coasts and shores, and in the bays, harbors, and creeks of Canada, New Brunswick, Nova Scotia, Prince Edward's island, and of the several islands thereunto adjacent, without being restricted to any distance from the shore; with permission to land upon the coasts and shores of those colonies and the islands thereof, and also upon the Magdalen islands, for the purpose of drying their nets and curing their fish; provided that, in so doing, they do not interfere with the rights of private property or with British fishermen in the peaceable use of any part of the said coast in their occupancy for the same purpose.

It is understood that the above-mentioned liberty applies solely to the sea fishery, and that the salmon and shad fisheries, and all fisheries in rivers and the mouths of rivers, are hereby reserved exclu sively for British fishermen.

And it is further agreed that, in order to prevent or settle any disputes as to the places to which the reservation of exclusive right to British fisherman, contained in this article, and that of fishermen of the United States, contained in the next succeeding article, apply, each of the high contracting parties, on the application of either to the other, shall, within six months thereafter, appoint a commissioner. The said commissioners, before prorceeding to any business, shall make and subscribe a solemn declaration that they will impartially and carefully examine and decide, to the best of their judgment and according to justice and equity, without fear, favor, or affection to their own country, upon all such places as are intended to be reserved and excluded from the common liberty of fishing under this and the next succeeding article, and such declaration shall be entered on the record of their proceedings.

The commissioners shall name some third person to act as an arbitrator or umpire in any case or cases on which they may themselves differ in opinion. If they should not be able to agree upon the name

of such third person, they shall each name a person, and it shall be determined by lot which of the two persons so named shall be the arbitrator or umpire in cases of difference or disagreement between the commissioners. The person so to be chosen to be arbitrator or umpire shall, before proceeding to act as such in any case, make and subscribe to a solemn declaration in a form similar to that which shall already have been made and subscribed by the commissioners, which shall be entered on the record of their proceedings. In the event of the death, absence, or incapacity of either of the commissioners, or of the arbitrator or umpire, or of their or his omitting, declining, or ceasing to act as such commissioner, arbitrator, or umpire, another and different person shall be appointed or named as aforesaid to act as such commissioner, arbitrator, or umpire in the place and stead of the person so originally appointed or named as aforesaid, and shall make and subscribe such declaration as aforesaid.

Such commissioners shall proceed to examine the coasts of the North American Provinces and of the United States embraced within the provisions of the first and second articles of this treaty, and shall designate the places reserved by the said articles from the common right of fishing therein.

The decision of the commissioners and of the arbitrator or umpire shall be given in writing in each case, and shall be signed by them respectively.

The high contracting parties hereby solemnly engage to consider the decision of the commissioners conjointly, or of the arbitrator or umpire, as the case may be, as absolutely final and conclusive in each case decided upon by them or him respectively.

Art. 2. It is agreed by the high contracting parties that British subjects shall have, in common with the citizens of the United States, the liberty to take fish of every kind, except shell-fish, on the eastern sea coasts and shores of the United States north of the 36th parallel of north latitude, and on the shores of the several islands thereunto adjacent, and in the bays, harbors and creeks of the said sea coasts and shores of the United States and of the said islands, without being restricted to any distance from the shore, with permission to land upon the said coasts of the United States and of the islands aforesaid for the purpose of drying their nets and curing their fish: provided that in so doing, they do not interfere with the rights of private property, or with the fishermen of the United States in the peaceable use of any part of the sea coasts in their occupancy for the same purpose.

It is understood that the above-mentioned liberty applies solely to the sea fishery, and that salmon and shad fisheries, and all fisheries in rivers and mouths of rivers, are hereby reserved exclusively for fishermen of the United States.

Art. 3. It is agreed that the articles enumerated in the schedule hereunto annexed, being the growth and produce of the aforesaid British colonies or of the United States, shall he admitted into each country respectively free of duty:

SCHEDULE.

Grain, flour and breadstuffs of all kinds.
Animals of all kinds.
Fresh, smoked and salted meats.
Cotton-wool, seeds and vegetables.
Undried fruits, dried fruits.
Fish of all kinds.
Products of fish, and all other creatures living in the water.
Poultry, eggs.
Hides, furs, skins, or tails, undressed.
Stone or marble in its crude or unwrought state.
Slate, Coal.
Butter, cheese, tallow.
Lard, horns, manures.
Ores of metals of all kinds.
Pitch, tar, turpentine, ashes.
Timber and lumber of all kinds, round, hewed, and sawed, unmanufactured, in whole or in part.
Firewood.
Plants, shrubs, and trees.
Pelts, wool.
Fish oil.
Rice, broom-corn and bark.
Gypsum, ground or unground.
Hewn or wrought or unwrought burr or grindstones.
Dye-stuffs.
Flax, hemp and tow, unmanufactured.
Unmanufactured tobacco.
Rags.

Art. 4. It is agreed that the citizens and inhabitants of the United States shall have the right to navigate the river St. Laurence, and the canals in Canada, used as the means of communicating between the great Lakes and the Atlantic ocean, with their vessels, boats and crafts, as fully and freely as the subjects of her Britannic Majesty, subject only to the same tolls and other assessments as now are or may hereafter be exacted of her Majesty's said subjects; it being understood, however, that the British Government retains the right of suspending this privilege on giving due notice thereof to the Government of the United States.

It is further agreed that, if at any time the British Government should exercise the said reserved right, the Government of the United States shall have the right of suspending, if it think fit, the operation of article three of the present treaty, in so far as the province of Canada is affected thereby, for so long as the suspension of the free navigation of the river St. Laurence or the canals may continue.

It is further agreed that British subjects shall have the right freely to navigate Lake Michigan with their vessels, boats, and crafts, so long as the privilege of navigating the river St. Laurence, secured to American citizens by the above clause of the present article, shall continue; and the Government of the United States further engages to urge upon the State Governments to secure the subjects of her Britannic Majesty the use of the several State canals on terms of equality with the inhabitants of the United States.

☞And it is further agreed that no export duty or other duty shall be levied on lumber or timber, of any kind, cut upon that portion of the American territory in the State of Maine watered by the river St. John and its tributaries, and floated down that river to the sea, when the same is shipped to the United States from the province of New Brunswick.

Art. 5. The present treaty shall take effect as soon as the laws required to carry it into operation shall have been passed by the Imperial Parliament of Great Britain and by the Provincial Parliaments of those of the British North American Colonies which are affected by this treaty on the one hand, and by the Congress of the United States on the other. Such assent having been given, the treaty shall remain in force for ten years from the date at which it may come into operation, and, further, until the expiration of twelve months after either of the high contracting parties shall give notice to the other of its wish to terminate the same; each of the high contracting parties being at liberty to give such notice to the other at the end of said term of ten years, or at any time afterwards.

It is clearly understood, however, that this stipulation is not intended to affect the reservation made by article four of the present treaty, with regard to the right of temporarily suspending the operation of articles three and four thereof.

Art. 6. And it is further hereby agreed, that the provisions and stipulations of the foregoing articles shall extend to the Island of Newfoundland, so far as they are applicable to that colony. But if the Imperial Parliament, the Provincial Parliament of Newfoundland, or the Congress of the United States shall not embrace in their laws, enacted for carrying this treaty into effect, the Colony of Newfoundland, then this article shall be of no effect; but the omission to make provision by law to give it effect, by either of the legislative bodies aforesaid, shall not in any way impair the remaining articles of this treaty.

Art. 7. The present treaty shall be duly ratified and the mutual exchange of ratifications shall take place in Washington within six months from the date thereof, or earlier if possible.

In faith whereof we, the respective Plenipotentiaries, have signed this treaty, and have hereunto afixed our seals.

Done in triplicate at Washington, the fifth day of June, anno domini one thousand eight hundred and fifty-four.

W. L. MARCY, [L. S.]
ELGIN AND KINKARDINE, [L. S.]

MY DEAR OLD HOME.

BY L. L. C.

I came again to my dear old home,
  But years, long years had sped;
And mid the raven locks of youth,
  Lay many a silvery thread—
The bounding step was slow and sad,
  The sparkling eye grown dim,
And the bird-notes, once so blithesome, fell
  Like the chimes of a funeral hymn.

I looked for the roof, that sheltered once
  The loved of childhood's hours—
I sought for the hearthstone; there it lay,
  A mound of grass, and flowers—
The broad armed oak, whose sheltering shade
  Was the scene of our merry play,
A moss-grown stump marked out the spot
  That told of its sad decay.

I wandered down to the poplar spring,
  And drank from its gushing stream,
But the draught had lost its magic charm,
  The waves, their golden gleam:
For the rippling waters seemed to speak
  With the tones of long-ago—
Oh! many a tuneful voice is still
  That mingled with their flow.

I turned to seek with lingering step,
  And spirit bowed and sad,
For those who had blessed that lowly roof,
  And made the hearthstone glad;
And I found them all, where the willow drooped
  Its long, green boughs around;
Some cherished form was resting there,
  'Neath each quiet, grassy mound.

I am forth again in the wide, cold world,
  But where'er my footsteps tread,
The dearest spot will be to me
  That home of the loved and dead—
The sunshine steals through the hanging boughs
  With a softened, holy light,
And silent stars gleam purest there
  In the hush of the summer night.

HAZLEWOOD, PIKE CO., MO., 1855.

The Exile.

From the French of Lammenais.

BY IRENE.

Lonely he goes wandering over the earth. May God guide the poor exile!

I have passed through crowds of people, and they have looked at me, and I have looked at them, and we meet with no recognition. Every where the exile is lonely.

When I saw, toward the end of the day, the smoke of some thatched cottage arising from the depth of a valley, I said to myself: Happy is he who returns in the evening to the fire-side of his own home, and rests amid his family. Everywhere the exile is lonely.

Whither go those clouds driven along by the tempest? It drives me as them along, and of what importance whither? Every where the exile is lonely.

These trees are grand, these flowers are fair; but they are neither the flowers nor the trees of my country: they tell me nothing. Every where the exile is lonely.

This stream flows gently in the plain; but its murmer is not that which my childhood heard: it recalls to my soul not a single souvenir. Everywhere the exile is lonely.

These songs are sweet, but the sorrows and the joys which they awaken are neither my sorrows nor my joys. Everywhere the exile is lonely.

They have asked me: why do you weep? and when I have told why, no one has wept with me, because no one understands me. Everywhere the exile is lonely.

I have seen old men surrounded by children, like the olive tree by its sprigs; but not one of these old men called me his son, not one of these children called me his brother. Everywhere the exile is lonely.

I have seen young maidens smile, with an air as pure as the morning breeze, on him whom their love had chosen for a husband; but not one has smiled on me. Everywhere the exile is lonely.

I have seen young men, breast to breast, clasping each other as though they wished their two lives might be only one life; but no one has taken me by the hand. Everywhere the exile is lonely.

He has no friends, no dear ones, no fathers, no brothers except in his native land. Everywhere the exile is lonely.

Poor exile! mourn no longer; all are banished as thou art: every one sees fathers, brothers, friends and dear ones pass and vanish away.

Our home is not on earth; man seeks it here in vain, finding it only a lodging for a night.

Lonely he goes wandering over the earth. May God guide the poor exile!

THE FINE ARTS IN ST. LOUIS.

Waugh's Bust of the late William L. Sublette.

It is gratifying to observe that notwithstanding the financial embarrassments which have injuriously affected other pursuits, the FINE ARTS have still continued to flourish in St. Louis. This is creditable to the taste of our citizens, and raises a strong presumption of merit on the part of our artists.

We claim to possess but little knowledge of the Fine Arts, and consequently judge of their productions chiefly from the general impression which they make upon our mind—we do not pretend to criticise details. The bust under consideration was modelled from a cast, and the living subject having never been seen by the Artist, it was not to be expected that the finer details of the muscular lineaments could be produced in the plaster. Nevertheless the likeness is striking, and readily recognized by those who were acquainted with the original.

But the principal object of sculpture is to commemorate the character, social condition, and deeds of men, rather than to preserve a minutely correct copy of their features. A statue is, or should be, a biographical and historical sketch of the individual, and of the prominent events or pursuits of his life. In this view of the subject, the conceptions of the artist are most happy The vigilent, yet calm and fearless aspect denotes the daring pioneer on the plains, and in the mountain defiles, and declares in language as plain as tongue could speak, that the original was *the Chief* among his comrades.

THE

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ARTICLE I.

Climate: Its Influence upon the Human Character.

A knowledge of the natural causes which diversify the character of the human family, is essential to a correct understanding of the moral developments and social condition of the respective nations into which it is divided. One who would be a statesman or political economist, should first qualify himself by studying the relations between man and the physical conditions of the earth—noting the influence of climate upon his physical, mental and moral nature. For although a people may be happy in their social relations, and attain to a respectable state of civilization in all climates where subsistence can be obtained with convenience, yet their temperament, manners, customs and social developments are chiefly of local origin. These constitute a part of man's nature, and like his physical constitution, conform to the influence of external objects. Hence, though belonging to the same race, professing the same religion, and living under one government, it is not in the nature of things that a people separated by many degrees of latitude, should be homogenious in their moral and social qualities.

The dependence of different countries upon each other for the means of subsistence and comfort may be so great as to establish a common interest, and bind distant regions together under one form of government. And, moreover, the commercial and social intercourse occasioned by such relations may produce a similarity of manners; but still the individual temperament and social tendencies peculiar to the respective countries will continue, and remain unchanged. From these premises, it would seem to follow, as a natural consequence, that the true elements of a nation's strength must be weakened, and the social character of its constituents de-

moralized by extending its dominion over a large area of country, especially if the expansion be in a northern or southern direction. But without stopping to inquire to what extent other nations have been affected by the natural causes here referred to, or by what means they have modified the influence of these causes, we shall proceed to notice the effects produced by climate and other physical objects upon the character of the Anglo-Saxon race in the United States.

The Atlantic coast, from Florida to New Brunswick, excepting the Dutch settlement in New York, and some others of less importance, was settled by emigrants from the Island of Great Britain, chiefly from England. The circumstances attending the settlement of every part of that coast were similar: the people of all the colonies were alike subject to the hardships and privations incident to pioneers far removed from the social advantages and conveniences of older communities. The extension of the settlements westward was everywhere resisted by the natives, and the colonists on almost every part of the coast were compelled to fight their way into the interior, and labor for a subsistence under the protection of the musket. All the circumstances attending the settlement of the colonies were of a nature calculated to develop the same traits of character, to establish a lively sympathy between the European emigrants throughout the entire range of their settlement, and make their descendants homogenious. Indeed, the philosopher could have desired no fairer experiment to test the effects of climate upon the individual character and social condition of the human family. But as soon as the difficulties attending the settlement of the country were overcome, and the resources of the respective divisions were sufficiently developed to indicate the pursuits most congenial and profitable to each locality, we find the descendants of these pioneers assuming different shades of character. And although the dissimilarity between the inhabitants of adjacent States is not very apparent; yet, when we contrast the character of the people inhabiting the more Southern States with the character of those of New England, we find them differing so widely and in so many respects, that we can scarcely realize the fact, that they are descendants from the same stock.

It was natural that the people of New England, living in a rugged climate, and cultivating a soil of but moderate fertility, should direct their attention to navigation, traffic and manufactures. The

necessities arising from the peculiar nature of their country, made them industrious, inventive and enterprising; while the nature of the climate imparted a restless and almost indomitable energy to their character. Such qualities were calculated to impel them onward in their respective pursuits with untiring perseverance, and incline them to concentrate and exert all their faculties in the attainment of their particular ends. Hence the success of New England in the acquisition of wealth. But the habit of concentrating the mind upon some one object, and that generally of a pecuniary nature, tended to narrow the range of intellect and produce a race of monomaniacs, men and women who would trample under foot the laws and most sacred observances of society, dissolve the union of the States, and madly risk their future happiness, to carry out and establish an abstract idea in respect to government or religion. It is scarcely necessary to observe that we do not view the entire population of New England as monomaniacs, but the prevalence of fanaticism in various forms in that region is strong evidence of a general tendency in the New England mind to sieze and act upon one idea or principle without allowing due weight to facts calculated to enlighten and modify their judgements.

The Central and Southern States possessing a more generous soil and less exciting climate, appropriated their labor almost entirely to agriculture, a pursuit which more than all others enlarges the range of thought, developes the moral nature, and liberalizes the mind; while those who follow it are less exposed to many dangerous temptations incident to other vocations.

In the more Southern States, the climate disposes the inhabitants to social enjoyments and a state of repose which would be detrimental to the progress of civilization in that region without the institution of slavery; and hence their exceeding sensitiveness upon that subject. The southern man is not aggressive, but ever prompt to repel aggressions by others. It is his nature to be conservative in politics and religion, and hence he insists upon a strict construction of the national constitution, and regarding acts of legislation which proceed from more liberal views than his own as aggressions upon his rights, he threatens to secede from the union whenever he imagines those rights to be assailed by the action of Congress.

From this view of the subject, it is obvious that harmony can never be established between the two extremes without the intervention of a well defined and efficient power in the center. For

many years past the policy of the general government has been determined in a great measure either by northern or southern influence, for the center being divided between the two wings, claims nothing for itself except its share of government patronage.

If a policy could be formed with direct reference to the interests of the central region, and the people of the center would adhere to it with the fidelity which distinguishes the northern and southern parties, it would narrow each of them down to mere fragments of the union, and lessen their power to disturb the repose of the nation.

Adverting to the influence of physical causes upon the character of the human family, it may be observed that the physical conditions of the central region of the United States are eminently favorable to the development of the human character in its highest degree of excellence. Here, the climate is sufficiently exciting to promote habits of industry, while the genial nature of the seasons admits of labor throughout the year. Hence, the inhabitants are not so liable to become indolent as in the South, nor are they so strongly tempted to resort to traffic and indirect means of obtaining property as in the North, where the products of the short summers are barely sufficient to support the producers and their families during the long winters. Here, a much greater variety of the substantial elements of subsistence is produced than in either of the other sections. And here, coal and iron, the great agents of civilization, are also more abundant and more generally distributed. These facts naturally lead us into a train of practical suggestions touching the economy and public policy of the central region, and more especially of the Western States. In view of the genial nature of the climate and of the abundance and variety of raw material in this region, it would seem to be the true policy of the people to diversify their pursuits by establishing a greater number of manufactures, thereby compelling the currents of commerce to flow towards the center instead of flowing from it, as it has done in times past. It is owing, chiefly, to the neglect of mining and manufacturing in the central region, that it possesses no well defined commercial system, and consequently but little political power. Commerce, that potent agent in building up States and nations, has robbed the central region of its wealth and political influence, to enrich other countries, and strengthen their institutions.

But how are these evils to be remedied, and how is the central

region to acquire its legitimate influence in the councils of the nation? This is an inquiry easier made than answered. The present state of society in the respective divisions of the Union to which we have alluded, is the result of natural causes, slowly, but continually operating with unerring certainty, to bring the character of the American people into conformity with the physical conditions of the country. The process has been going on for more than two centuries, and even if it be practicable to counteract its effects in future and harmonize the discordant elements, it must be the work of years, perhaps of generations.

The central region must gain its legitimate position by the aid of industry and capital, rather than by acts of legislation; much, however, remains to be done by the statesman as well as by the political economist. The State legislatures can render but little aid in any other way than by encouraging the construction of works of public improvement designed to develop their natural resources and build up their cities. And after the improvement of the rivers, and the adoption of a just and liberal system touching the disposition of the public lands, the most that need be asked of Congress, is, that it should not legislate in favor of northern or southern interest at the expense of the central. The interests of the center demands a firm, consistent and conservative policy that will give confidence to labor, enterprise and capital: one that will hold in check the desire to enlarge the territorial boundaries of the nation, and harmonize as far as practicable the differences between the North and the South. Could such a policy prevail for an indefinite period, the operation of natural laws would in time establish what is so necessary to the preservation of the Union—a great moral power in its center. This is the idea which we most desire to impress upon the minds of western men, and more especially upon the minds of western statesmen. For we are persuaded that the destiny of the Union, for good or for evil, depends in a great degree upon the conduct of the western people of the present generation. And no people ever had stronger incentives to exert themselves in behalf of a good cause; for a course of policy calculated to promote their own prosperity, would, at the same time, be the best of all others to preserve the union of the States. They are not required to make sacrifices for the benefit of the Union, but invoked to preserve it by pursuing a policy which will develop their own natural resources, establish manufactures and home markets,

build up their cities, and secure to themselves that degree of influence in the councils of the nation, to which they are entitled by reason of their local position.

Were the people of the North and of the South sincerely attached to the Union of the States, they would each incline to favor the establishment of a well defined central or western policy, for they must be convinced that their differences can never be reconciled so long as the nation is divided into northern and southern parties. They must perceive the necessity of an arbiter who can sympathise with both parties and whose interests will lead him to do justice between them. But we are persuaded that the prejudices which have been so long growing up between the north and the south are so strong and deeply rooted, that their love for the union has been much weakened; and that neither of the two parties would be willing to aid in establishing the influence of a third.

The idea of preserving the union of the States by an equal adjustment of political power between the North and the South, we regard as a fallacy. It presupposes a want of sympathy and confidence between the two sections, and must be viewed as a measure of defence rather than of union. It also excludes the idea of any political influence in the central region, and we are persuaded that to this, more than to any other cause, is to be attributed the want of efficiency on the part of the western delegation in Congress when endeavoring to obtain justice for this region.

A balance of power will not establish sympathy between the people of the north and the south, nor can it protect the latter against the aggressions and vexatious annoyances of northern fanaticism. We have endeavored to show that the want of sympathy between the two extremes has been occasioned by natural causes, and it is vain to hope that the union can be long preserved unless some means can be discovered to establish a more generous sympathy between the parties than has existed for many years past. Indeed dissolution should be preferred by both parties to a state of enmity and continual strife.

But our confidence is still strong in the union. We trust in the increasing population of the west, and the establishment of a commercial system which shall change the currents of commerce to the center, as the means of counteracting the effects of climate and of establishing a community of interests and a more cordial sympathy between the inhabitants of every part of the union.

Hence we regard the great railway system of the west, of which St. Louis is the center, as one of the principal means of binding the States together, and of building up a great moral power upon the American continent, whose influence shall be felt by all the nations of the earth. Such a moral power should it ever exist, must have its seat in the central region of the United States. For it must be admitted here that the physical conditions are more favorable to the production of comprehensive and well balanced minds, and to a full development of man's moral nature, than in any other part of the continent.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 18, vol. XIV. No. 1.

A backwoods wedding; Bridal procession; House-building and warming; Sports of the frontier; State of medical knowledge; Witchcraft; Manufactures; State of education; Religion; General character of the frontier people.

BACKWOODS WEDDING PROCESSION.—From the arts of frontier life, let us pass to a most amusing illustration of its manners, in a wedding celebrated in all the rude simplicity of the times. In a young society or new settlement, where the means of subsistence are easy, and manners simple, marriages became numerous, and take place early in life. Courtship was not a work of long time; first impressions soon led to matrimony. If the parties were inexperienced, they improved together; and by the happy flexibility of human nature, mutually adapted their characters to one another. Sincere love is a wonderful magician in conjuring over the sympathy of the human heart. As Dr. Franklin remarks, what early marriages may want in wisdom, they make up by affection and mutual adaptation of habit and passion to one another.*

But to return to the picture of a frontier wedding. "At an early period, the practice of celebrating the marriage at the house of the bride began, and it should seem with great propriety. She also

* Doddridge.

had the choice of the priest to perform the ceremony. In the first settlement of the country, (meaning the northwestern part of Virginia, tho' applicable to the whole frontier,) a wedding engaged the attention of a whole neighborhood; and the frolic was anticipated by old and young, with eager expectation. This is not to be wondered at, when it is told that a wedding was almost the only gathering, which was not accompanied with the labor of reaping, log rolling, building a cabin, or planning some scout or campaign.

In the morning of the wedding day, the groom and his attendants assembled at the house of his father, for the purpose of reaching the mansion of his bride by noon, which was the usual time for celebrating the nuptials, which for certain, must take place before dinner.

Let an assemblage of people be imagined in a country without a store or shop, a tailor, or mantua maker within a hundred miles; and an assemblage of horses, without a blacksmith or saddler within an equal distance. The men dressed in shoe packs, moccassons, leather breeches, leggins, linsey hunting shirts, and all home made. The women dressed in linsey petticoats and linsey or linen bed gowns, coarse shoes, stockings, handkerchiefs and buckskin gloves, if any. If there were any buckles, rings, buttons, or ruffles, they were the relics of old times: family pieces from parents or grand parents. The horses were caparisoned with old saddles, old bridles, or halters, and packsaddles with a bag or a blanket thrown over them. A rope or string as often constituted the girdle, as a piece of leather. The march in double file was often interrupted by the narrowness and obstructions of our horse-paths, as they were called, for we had no roads. These difficulties were often increased, sometimes by the good, and sometimes by the ill will of neighbors, by felling trees and tying grape vines across the way. Sometimes an ambuscade was formed by the wayside, and an unexpected discharge of several guns took place, so as to cover the wedding company with smoke.

Let the reader imagine the scene which followed this discharge; the sudden spring of the horses, the shrieks of the girls, and the chivalric bustle of their partners to save them from falling. Sometimes, in spite of all that could be done to prevent it, some were thrown to the ground. If a wrist, elbow or ankle happened to be strained, it was tied with a handkerchief, and little more was said or thought about it.

Another ceremony commonly took place before the party reached the house of the bride, after the practice of making whiskey began, which was at an early period. When the party were about a mile from their destination, two young men would single out to run for the bottle; the worse the path, the more logs, brush and deep hollows, the better, as these obstacles afforded an opportunity for a better display of intrepidity and horsemanship."

Housebuilding and Warming. — The picture of a western or frontier wedding procession, painted in its native hues, may well be accompanied with an account of the settlement of the new married pair in the duties of married life. "A spot was selected on a piece of land belonging to one of the parents, for the habitation of the newly married pair. A day was appointed shortly after their marriage for commencing the work of building a cabin. The fatigue party consisted of choppers, whose business it was to fell trees and cut them of at proper lengths; a man with a team for hauling them to the place, and arranging them, properly assorted at the sides and ends of the buildings; a carpenter, if such he might be called, whose business it was to search the woods for a proper tree for making clapboards for the roof. The tree for this purpose must be straight-grained, and from three to foor feet in diameter. The boards were split four feet long, with a large frow, and as wide as the timber would allow. They were used without planing or shaving. Another division was employed in getting puncheons for the floor of the cabin. This was done by splitting trees, about eighteen inches in diameter, and hewing the faces of them with a broad axe. They were half the length of the floor they were intended to make. The materials for the cabin were mostly prepared on the first day; and sometimes the foundation laid in the evening. The second day was allotted for the raising.

In the morning of the next day, the neighbors collected for the raising. The first thing to be done was the election of four corner men, whose business it was to notch and place the logs. The rest of the company furnished them with the timbers. In the meantime the boards and puncheons were collecting for the floor and the roof; so that by the time the cabin was a few rounds high, the sleepers and floor began to be laid. The door was made by cutting or sawing the logs in one side, so as to make an opening about three feet wide. This opening was secured by upright pieces of timber, about three inches thick, through which holes were bored into the

ends of the logs, for the purpose of pinning them fast. A similar opening, but wider, was made at the end for the chimney. This was built of logs, and made large, to admit of a back and jam of stone. At the square, two end logs projected a foot or eighteen inches beyond the wall, to receive the butting poles, as they were called, against which the ends of the first row of clap boards was supported. The roof was formed by making the end logs shorter, until a single log formed the comb of the roof; on these logs, the clapboards were placed, the ranges of them lapping some distance over those next below them, and kept in their places by logs placed at proper distances upon them. The roof, and sometimes the floor, were finished on the same day of the raising. A third day was commonly spent by a few carpenters, in levelling of the floor, making a clapboard door and a table. This last was made of a split slab, and supported by four round legs set in anger holes. Som three-legged stools were made in the same manner. Some pins stuck in the logs at the back of the house, supported some clapboards which served for shelves for the table furniture. A single fork placed with its lower end in a hole, in the floor and the upper end fastened to a joist served for a bedstead, by placing a pole in the fork with one end thro' a crack between the logs of the wall. This front pole was crossed by a shorter one within the fork, with its outer end through another crack. From the front pole thro' a crask between the logs of the end of the house, the boards were put on, which formed the bottom of the bed. Sometimes other poles were pinned to a fork, a little distance above these, for the purpose of supporting the front and foot of the bed, while the walls were the support of its back and head. A few pegs around the walls for a display of the coats of the women and the hunting shirts of the men; and two small forks or buckhorns to a joist for the rifle and shot pouch, completed the carpenter work. In the mean time, masons were at work; with the heart pieces of the timber, of which the clapboards were made, they formed billets for chunking up the cracks between the logs of the cabin and the chimney. The cabin being finished, the ceremony of house warming took place, before the young couple were permitted to move into it. The house warming was a dance of a whole night's continuance, made up of the relations of the bride and groom and their neighbors. On the day following, the young couple took possession of their new manson."

Sports of the Frontier.—From the settlement of a new mar-

ried pair in their frontier cabin, the transition is easy to the sports of the country, which enlivened the solitary and dangerous life of the backwoodsman. "Let me compose the songs of a people and anybody else may make their laws," was the saying of a shrewd observer of human nature. The amusements of a people are not only highly indicative of their character, but they exert an important influence, informing and fostering peculiarities of disposition. Amusements exhibit the human heart stripped of much of the disguise incident to artificial life. The gladiators of Roman antiquity, the Olympic games of ancient Greece, the bull fights of modern Spain and Mexico, with the dances of "the vine clad hills of France," all illustrate this truth.

"Many of the sports of the first settlers of the western frontier were imitative of the exercises and stratagems of hunting and war. Boys were early taught the use of the bow and arrow. But although they acquired considerable adroitness in the use of them, so as to kill a bird or squirrel sometimes, yet it appears to me that in the hands of the white people the bow and arrow could never be depended upon for warfare or hunting, unless made and managed in a different manner from any specimens of them that I ever saw.*" Yet the prowess of the ancient bowmen of England, and the dexterity of our prairie tribes, who will send an arrow through the body of a buffalo in full chase, on horseback, clearly establish the efficiency of this weapon under certain circumstances. In ancient times, the bow and arrow must have been deadly instruments in the hands of the barbarians of our country; but I much doubt whether any of the present tribes of Indians could make much use of the flint arrow heads, which must have been so generally used by their forefathers.

"One important pastime of our boys was that of imitating the noise of every bird and beast in the woods. This faculty was not merely a pastime, but a very necessary part of education, on account of its utility under certain circumstances. The imitations of the gobblings of wild turkies often brought this keen-eyed and watchful tenant of the forest within reach of the rifle. The imitation of the bleating of the fawn brought its dam to her death in the same way. The hunter often collected a company of mopish owls to the trees about his camp, and amused himself with their hoarse screaming; his howl would raise and often obtain responses from a pack of wolves, so as to inform him of their neighborhood, as well as guard him against their depredations.

This imitative faculty was sometimes requisite as a measure in war. The Indians when scattered about in a neighborhood, often collected together, by imitating turkeys by day, and wolves or owls by night. In similar imitations our people did the same. I have often witnessed the consternation of a whole neighborhood in con-

* Idem.

sequence of a few screeches of owls. An early and correct use of this imitative faculty was considered as an indication that its possessor would become in due time a good hunter and a valiant warrior. Throwing the tomawawk was another boyish sport, in which many acquired considerable skill. The tomahawk with its handle will make a given number of turns in a given distance; say in five steps, it will strike with the edge, the handle upward, and so on. A little experience enabled the boy to measure the distance with his eye, when walking through the woods, and strike a tree with his tomahawk, in any way he chose. The athletic sports of running, jumping and wrestling were the pastimes of boys in common with the men.

A well grown boy, at the age of twelve or thirteen years, was furnished with a small rifle and a shot pouch. He then became a fort soldier, and had his port hole assigned him; hunting sqirrels, turkeys and raccoons, soon made him expert in the use of the gun.

Dancing was the principal amusement of our young people of both sexes. Their dances, to be sure, were of the simplest forms. Three and four-handed reels, country dances, (contra dances,) cotillions and minuets were unknown. I remember to have seen once or twice a dance which was called the "Irish trot," but I have since forgotten his figure. Shooting at a mark was a common diversion among the men, when their stores of ammunition would allow it; this, however, was far from being always the case."

Science of Medicine in the Frontier. This complex science, the result of many centuries of painful thought and elaborate experiment, altho' interwoven with the inestimable blessings of health, could scarcely be said to exist in the backwoods, at their first settlement. The professors of this curious art are rather the followers than the pioneers of civilization; they flourish as society flourishes; but seldom attend its first development. Their counterfeit substitutes are conjurors and specific empirics. With such practitioners, remedies for almost all diseases are specifics. This too, by a fallacy in reasoning not confined to the illiterate pretenders to medicine—making the induction broader than the facts from which it is supposed to be deduced, and confounding occasional coincidence with necessary connection. "It would be unsuitable to relate all the nostrums, which were in use among the first settlers. It may suffice to say that "the diseases of children were mostly ascribed to worms." For this supposed complaint, salt, scrapings of pewter spoons, sulphate of iron, or green copperas, were commonly resorted to. The Virginia snake root, in very large doses, was a favorite diaphoretic; but if a cathartic was desired, the white walnut peeled *downwards*, was employed; and *upwards*, if an emetic was wanted. "Indian physic, a species of ipecacuanha, was frequently used for a vomit, and sometimes the pacoon or blood root." "For the bite of a rattle or copper snake, a great variety of specifics was tried. I remember, when a small boy, to

have seen a man bitten by a rattlesnake, brought into the fort, on a man's back. One of the company dragged the snake after him, by a forked stick fastened to its head. The body of the snake was cut into pieces of about two inches in length, split open in succession, and laid on the wound, to draw out the poison, as they expressed it. When this was over, a large fire was kindled up in the yard, and the serpent burned to ashes, by way of revenge for the injury he had done. After this process was over, a large quantity of chesnut leaves was collected and boiled in a pot. The whole of the wounded man's leg and part of his thigh were placed on a piece of chesnut bark, fresh from the tree, and the decoction poured on the leg so as to run down into the pot again. After continuing this process for some time, a quantity of the broad leaves was bound to the leg. This was repeated several times a day. The man got well; but whether owing to the treatment bestowed on his wound, is not so certain."*

"Gun shot and other wounds were treated with slippery elm bark, flaxseed and such other like poultices. Many lost their lives from wounds which would now be considered trifling and easy cured. The use of the lancet and other means of depletion, in the treatment of wounds, constituted no part of their cure, in the country, in early times. The erysipelas, or St. Anthony's fire, was circumscribed by the blood of a *black* cat. Hence there was scarcely a black cat to be seen whose ears and tail had not been frequently chopped for a contribution of blood." Was there not more witchcraft than anything else in such notions of medicine?

WITCHCRAFT.—It will not, the author trusts, be thought any intentional derogation from the merits of the important and sanative science of medicine, to arrange the opinions of the frontier people on witchcraft with their ignorant prejudices on the subject of medicine. Both were alike the offspring of uncultivated minds, too much occupied by the physical wants of their condition, to investigate the phenomena of nature. "The belief of witchcraft was prevalent among the settlers of the western country. To the witch was ascribed the tremendous power of inflicting strange and incurable diseases, particularly on children; of destroying cattle by shooting them with hair balls, and a great variety of other means of destruction; of inflicting spells and curses on guns and other things, and lastly, of changing men into horses, and after bridling and saddling, riding in full speed over hill and dale to their frolics and other places of rendezvous. Wizards were men supposed to possess the same mischievous powers as the witches; but these were seldom exercised for bad purposes. The powers of wizards were exercised for the purpose of counteracting the malevolent influence of the witches of the other sex. I have known several of these

* Idem.

† Idem.

witch masters, as they were called, who made a public profession of curing the diseases inflicted by the influence of witches; and I have known respectable physicians, who had no greater portion of business in the line of their profession, than many of these witch-masters in theirs." "The diseases of children supposed to have been inflicted by witchcraft were those of the internal dropsy of the brain, and the rickets. The symptoms and canse of these destructive diseases were utterly unknown in former times, in this country. Diseases, which could neither be accounted for, nor cured, were usually ascribed to some supernatural agency of a malignant kind. For the cure of the diseases inflicted by witchcraft, the picture of the supposed witch was drawn on a stump or piece of board and shot at with a bullet containing a little bit of silver. This silver bullet transferred a painful and sometimes a mortal spell on that part of the witch corresponding with the part of the portrait struck by the bullet." "The witch had but one way of relieving herself from any spell inflicted on her, in this way, which was that of borrowing something, no matter what, of the family to which the subject of the exercise of her witchcraft belonged. I have known several poor, old women much surprised at being refused requests, which had been usually granted without hesitation, and almost heart-broken when informed of the cause of the refusal.

When cattle or hogs were supposed to be under the influence of witchcraft, they were burnt in the forehead by a branding iron, or when dead, burned wholly to ashes. This inflicts a spell upon the witch that could only be removed by borrowing as above stated. Witches were often said to milk the cows of their neighbors. This they did by fixing a new pin in a towel for each cow intended to be milked. This towel was hung over her own door, and by means of certain incantations, the milk was extracted from the fringes of the towel after the manner of milking a cow. This happened when the cows were too *poor* to give much milk."*

There were some peculiarities in our early arts, in the western country, which may well be recorded. "Hats were made of native fur, and sold for five hundred dollars a piece, in the paper money of the times; the wool of the buffalo and the bark or rind of the wild nettle were used in the manufacture of cloth, and a peculiar sort of linen out of the latter."†

There is another fact connected with the internal condition of the country, which may be grouped here, although not precisely in time. In December, 1781, the Legislature of Virginia extended the scale of depreciation by which her issues of paper money should be taken, at the rate of one and a half paper dollars, for one hard or silver dollar, to one thousand dollars in paper for one in silver.‡

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* Idem.

† Marshall, I, 124.

‡ Idem.

The author has been informed by most credible witnesses that while a dinner at a tavern in Virginia, what was charged to British officers who had specie in their pockets, at one dollar, was charged to Americans at $1000 in paper. The certificates of this depreciation which were issued in exchange for the previous currency, were directed by law to be taken for taxes and for lands belonging to the State. The price of the latter was fixed at a specie valuation, but so reduced as to make them cost less than five dollars the thousand acres in hard money, or the paper price of the warrant was subjected to the scale of depreciation, so that the land was obtained "for less than fifty cents per hundred acres."* A temptation to pour forth a flood of paper money to be invested in the lands of Kentucky, which trebled and quadrupled the *claims* of the country over and above the lands to its deep and lasting distress. But even with this strong temptation thrown in the way of the adventurous and the speculative, the country could not in all probability have been maintained against the Indians, had it not been for the ample stores of provision, which the forest supplied. The enemy would never have permitted provisions to have been raised by the slow and peaceable processes of farming; and the consequence must have been that stations would have been starved into surrender. The providential supply of the deer, the buffalo, and the bear, saved the pioneers from this melancholy termination of their bold enterprise. This natural supply from the woods was to be obtained by every rifleman—the white man as well as the red; and this so abundantly, that the buffalo was often shot to enjoy his hump or his tongue, while the residue was left to the wolves.

It may be permitted to enlarge here on the manners and general character of the first settlers of the West, beyond the details which have just been furnished. Hardihood, bravery, endurance of suffering and generosity, were prominent and undeniable features in the character of the first settlers of the western country. These qualities are attested by the whole history of their gallant, hardy and magnanimous deeds in the conquest which they made of this lovely land from wily, ferocious and formidable tribes of Indians, assisted by the ample resources of Great Britain. Literature and science with their train of humanizing arts, and the innumerable excitements which they furnish, it would be worse than folly to expect in these not misnamed barbarous and primitive times of the West. Still, there was interspersed with the rough and uneducated, many spirits of cultivated character, the offshoots of the elder colonies, whom the common passions for enterprise, danger and novelty prompted to participate in these new and difficult scenes. Government was nearly as simple as the impalpable policy which subsists among the Indians; the complexities of law were uncalled for in this condition of few wants and nearly universal means of

* Idem, I, 125.

gratifying them. Trade, beyond a confined domestic barter, there was none; for there was nothing yet to give in exchange. Did any man want land? He might occupy any quantity he could defend against the Indians. Did he want clothing or subsistence? His rifle could furnish any supply of either, which his activity and his industry could command. Avarice and the love of gain had, at first, scarcely any temptation to develope them. What a chasm must then have existed to be filled by one of the fiercest and most insatiate passions of the human mind! Yet let it not be supposed that our early society was one of Arcadian fiction. Though politics did not distract the community with the noisy din and the bitter contentions of our most popular government; though traffic and labor did not furnish many topics of strife and sources of discontent; still, there was no absence of rivalry, and that pursued with sufficient bitterness. They would dispute, who was the best shot, the supplest wrestler, the strongest man, or in the words of the times; "the best man in a fight." Nor were these disputes always bloodless; and even sometimes were settled with the knife or the rifle. The female sex, though certainly an object of much more feeling and regard than among the Indians, was doomed to endure much hardship, and to occupy a rank in society grossly inferior to her male partner. Much of this was incidental to living on the frontiers, watchful for life, and struggling for subsistence. In fine our frontier settlers were generally much more allied to their Indian cotemporaries, in other respects, than in their complexions.

To be sure, this is but a general picture of the mass; there were among them, as has been already observed, men of finer mould and superior character; and the preceding remarks must be severely restricted to the body of the earliest imigrants. It has little or no resemblance to Clark, Harrod and Boone, Bullitt and Logan, Floyd, the Todds and Hardin; and no doubt many others who were the lights and guides of their times. The frontier life was a state of society peremptorily *extorting* high physical faculties, more than mental exertions, or artificial endowments When therefore, we learn that any of these leaders in frontier difficulties were little or at all advanced in artificial learning, let not the reader be so unjust as to treat their memory with contempt. Letters could have ill supplied the place of their manly spirit, their vigorous frames, and above all their tact in commanding the respect and confidence of a fierce and rough class of men while living; and their sincerest regret when dead. These gallant and magnanimous pioneers of the West will be ever sacred to the hearts of all lovers of brave and noble deeds, however they may have wanted the polish and beauty of learning and books. Charlemagne was no less the emperor of the West of Europe, and the master spirit of his time, stamping the impress of his genius on his generation, though he *signed*, and could not subscribe his name. Artificial education, or the learning of books, precious as it is in the accumulated ex-

perience of human existence, is too often confounded with that higher education which consists in the development of the mind, inspired by surrouning circumstances, and which is open to all the children of man, whether favored by civilization or not. The talents and dispositions of man are the endowments of his nature, not the product of schools and books. The most uncultivated state of society has its genius, its heroes and saints.

Religion. The religion of these times must necessarily have suffered amidst the pressing privations surrounding the inhabitants; it could not have been greatly cultivated in form, or doctrine, amid the struggles with want and battles for life. Still, there is a higher worship of God, one that shows itself in kindness, mercy and self-sacrifice, above all forms and doctrines, however sublime. The hearts of the hardiest men, much more of the softer sex, must often have melted with reverence for that Being whose secret and invisible providence watched over their weakness, and saved them from the perils of the rifle and the tomahawk. True, many fell victims to the Indians; many were burned and tortured to death with every refinement that diabolical vengeance could suggest; others were harrowed with the recollection of children's brains dashed out by the savages against trees; or the death shrieks of dearest friends and connexions; still, the consolations of Heaven might not be absent from the dying spirits of the former, or the wounded hearts of the latter. The religion of the heart, gratitude to God, and love for man, flourish in the rudest states of society, and not unfrequently with more purity than amidst the accumulated temptations of more refined life. Nor are the temples of religion, nor yet her ministers, important as both are to heavenly meditations, and to seeking the moral glories of a higher and better state of being, than this life can afford; still they are not, let it never beforgotten, indispensable. In the beautiful lines of Bryant

> "The groves were God's first temples. Ere man learned
> To hew the shaft, and lay the architrave,
> And spread the roof above them, ere he framed
> The lofty vault, to gather and roll back
> The sound of anthems, in the darkling wood,
> Amidst the cool and silence, he knelt down,
> And offered to the Mightiest solemn thanks
> And supplication."

There was in the pioneers, as might be naturally expected, a roughness of exterior, though conventional forms of society are never to be confounded with the generous self-sacrifice which constitutes the essence of genuine politeness. There was too little respect for the rights and moral claims of Indians; but to lie, to cheat, to desert a fellow hunter in distress, were vices rarely found among the brave and simple men, who conquered the western forest and its savage inhabitants. A manly love of truth, an independence of spirit which would right itself "in the court of Heaven," were almost invariable traits in their character. There was another

feature in the pioneer character, that may close this sketch: it is cool deliberation, apparently approaching to the phlegmatic, but certainly very different from the fiery impetuosity, too characteristic of less dangerous and trying conditions of life. The circumstances of a woodsman, whether hunter or warrior, called for the coolest caution, the most sleepless vigilance; his success in the chase or on the war-path was pursued with his life in his hand. Rashness, or impetuosity, endangered the attainment of his object at every step. Hence the impassive countenance of woodsmen, whether white or red; hence the deliberation, which marks all the deportment and movements of the Indian in council and in war. Our own countrymen, in similar circumstances, resembled their prototypes in the forest. The habits and manners in war and in hunting of both races were probably inspired by the same great teacher—nature herself.

(To be continued.)

ARTICLE III.

The Commerce of the Black Sea.*

CONSIDERED WITH REGARD TO ITS BEARING ON THE EASTERN QUESTION.

Continued from page 43.

In 1355 the Turks passed the strait which separates Europe from Asia, and gained possession of Galliopoli. Albania and Servia soon fell into the power of Amurath, who established at Adrianople the seat of his government. In 1360–64 John Paliologue had a frightful dream. He thought he saw Amurath under the walls of Constantinople. Tearing himself at once from his life of effeminacy and pleasure, he set off for Rome, passing by Venice, where he borrowed a considerable sum of money, so as to be able to appear in Italy with becoming dignity and splendor. Addressing himself to Pope Urban V., he abjured the schism, and the Holy Father promised to arm the Christian princes in favor of Constantinople. But John Paliologue obtained nothing but indulgences, and when he returned to Venice, where he intended to re-embark immediately, he was arrested by his creditors.

The conduct of Venice on this occasion is an historical fact of great importance. A new crusade would have reconsolidated the empire, and the Venetians would have regained their supremacy in Constantinople. But the Greek emperor had failed in his attempt; Europe turned a deaf ear to his cries of distress; the Byzantine

* Translated from the French for the *Merchants' Magazine*, by an American Lady, of Paris.

empire had come to its end, and having nothing in future to expect from the favor of Paliologue, he was retained prisoner like any common creditor. His son Manuel with great trouble collected the sum necessary to obtain his liberty, and John, when he returned to his capital was obliged to resign himself to the necessity of paying tribute to Amurath.

The Genoese, in spite of John Cantacuzene, had preserved a great influence in Constantinople. Foreseeing like the Venetians the ruin of the Greek empire, they sought the good graces of the sultan, in order to preserve the advantages which the Commerce of the Black Sea still offered to them. In concert with Bajazet, they stimulated a revolt in Constantinople, which placed Andronic, son of John Paliologue on the throne. The conduct of Andronic was soon displeasing to the sultan, and John, having escaped, obtained assistance from Bajazet, with which he entered into his capital. The Mussulmans made rapid progress, and the successors of Constantine soon found themselves degraded to the humiliating position of vassals of the sultan. In vain they called upon Christian Europe. Catholic sovereigns refused to arm themselves in favor of schismatic Greeks. Religious fanaticism had given place to cool calculations of interest and policy. Still Christian armies went to the assistance of Constantinople, but the terror which the conquests of the Ottomans inspired, was the only motive for this enterprise, which completely failed.

The Turks were determined to have Constantinople at any price; they began by taking, one after another, all the provinces which belonged to this capital, and when Byzantium was entirely isolated—without treasure, without armies—they attacked it openly. It was the combat of Hercules with Anteus, who perished because the ground was wanting to stand upon. To be the more sure of their victim, they took even the sea from Constantinople, by taking possession of the Bosphorus.

Mahomet II. gave the final blow to the old Greek empire, which had so long been struggling with death. The year following, 1453, Constantinople became Turk. The Commerce of the Black Sea was about to be entirely ruined by the Turks, who had already so powerfully contributed to its decline. The Genoese established at Galdia hastened to make their submission. They hoped to preserve under the Ottomans the privilege they enjoyed under the Greek emperors, but, like the rest of the population, they were treated as slaves. Soon Mahomet passed to the Asiatic shores of the Black Sea, and took possession of Amastria, one of the most important of the Genoese colonies, until then supposed impregnable, but which could not hold out against the Turkish artillery. The sultan took afterwards Sinope, which belonged to a petty Persian prince. Trebizond fell in 1462, and all the Southern shores of the Euxine found themselves under the yoke of the Mussulman. The Genoese kept still Kaffa, and their other establishments in the

Crimea. The Venetians possessed nothing beyond the Dardanelles; but thinking of the advantages which they would draw from the Commerce of the Black Sea under the empire of the Turks, who, notwithstanding their fondness for luxury, had neither arts nor manufactures, they made the offer to Mahomet to provision Constantinople, and succeeded in making a bargain with him. They even engaged, although forbidden by the Pope, to furnish arms and munitions of war to the Turks.

Besides, the republic obtained the privilege of retaining Scutari and the places she occupied in Albania, by paying an annual tribute of 230,000 ducats. Mahomet II. was determined to rule alone in the Black Sea, and had created a formidable marine. He felt the importance of possessing the Crimea for the provisioning of Constantinople, and also as a barrier against the Eastern powers. He sought occasion to drive out the Genoese, who were masters of Caffa, and could at any moment unite themselves with the Hungarians, the Poles, and the Russians, and with their galleys bring an army of crusaders before his new capital. An injustice of the Genoese towards the Tartars of the Crimea, and the treachery of a Tartar seigneur named Emineh, soon furnished him with a favorable pretext. The 1st of June, 1474, four hundred Turkish galleys appeared before Caffa, which Emineh already besieged by land. The city surrendered after an obstinate defense. Fifteen thousand Genoese were incorporated into the body of the Janizaries, and Mahomet employed the rest of the population to cultivate the ground in the environs. As for Menghely-Gherai, khan of the Crimea, the conqueror treated him generously, because, like himself, he was descended from Batou-Khan, and was satisfied to make him a vassal of the Porte. The Turks had no longer a rival in the Black Sea; they permitted the Venetian galleys to navigate it, which, freed from the competition of the Genoese, made considerable profits, notwithstanding the unceasing demands made upon them by the Porte. The rich productions of India did not come any more by the way of the Black Sea; but they found entrance into Europe by the way of Egypt, and Venice had the monopoly of this Commerce which was worth sixty or seventy per cent. The fall of Genoa seemed to assure to her for a long time the empire of the Mediterranean, when two unexpected events changed the face of the world. Christopher Columbus discovered America in 1492, and Vasco de Gama found a new route to India. There only remained one means of saving Venice; it was to send her own ships into the two Indies. The superiority of her marine over that of all Europe, and the prodigious number of her vessels, enabled her, without compromising herself, to run the risk of sending to make discoveries, and extend into India and the new world the limits of her commercial operations Strange to relate, not a single vessel left her ports to steer towards America, or to go to cast anchor at the mouth of the Ganges or the Indus. What then was the Ve-

netian government thinking of — this government so capable, so justly renowned for the sagacity of its policy, so prompt to profit by all wars and all revolutions? Had it lost all at once the instinct of its own existence, and the boldness of its deliberations? No; but Venice had followed for ages an object to which she consecrated all her resources, and all the secrets of her policy and her power. She struggled to obtain the empire of the Mediterranean, and she had so identified herself with this dream that she could not awaken from it, even by the noise which the discovery of a new world made in Europe. Besides, ruled by her aristocracy and embarrassed more and more by her administration, Venice seemed to have become motionless in her lagoons, and this inertia had begun to arrest the development of her manufacturing industry.

The republic had been profoundly awakened, nevertheless, when she heard of the voyage of the Portuguese by Africa. She sen spies to Lisbon, and learnt, that out of 105 vessels sent during one year to India by the "cape of tempests," as it was called, one half were wrecked. She concluded that the new route would be abandoned, and slumbered in a chimerical hope, with her eyes fixed on the extremity of the Black Sea, and on the shores of Egypt. This illusion was of short duration; the value of the merchandise of India diminished daily in Europe, and soon there remained no other markets for the merchandise which the Venetians brought from the East, but those of Turkey, the Black Sea, and the Adriatic, from which they sought to drive away all competition. Venice, after having raised herself to the summit of grandeur, was destined to see the rapid decline of her power and her commerce. She was far from the time when her judges at Constantinople walked in equality with the emperors, surrounded like them by guards, and like them wearing insignia of the imperial dignity. The genius and the audacity of a single man had caused the Venetians to lose the privilege of furnishing with the provisions of the East, the greater part of the country washed by the Mediterranean, and the numerous vessels of the Hanseatic league, which spread them through all the north of Europe. When Venice comprehended finally the imminent danger to which she was exposed, she prepared to make a vigorous resistance. She proposed at first to buy of the Portuguese, in mass, all the merchandise which they brought from the Indian seas by the way of the Cape. It was a calculation made by skillful heads, but the Portuguese refused to co-operate with the Venetians. After this check to her policy, the republic struck out a new plan; she even dared to dream of annihilating the Commerce of India by the Cape of Good Hope. United in interest with the Egyptians, she represented to the Sultan known in Europe by the name of Camson, that Commerce was one cause of the ruin of his kingdom, and that it was more important to him than to any other power to drive the Portuguese from the shores of India, when they had not had time to establish themselves firm-

ly. The Venetians offered at the same time to open at their own expense a canal between the Red Sea and the Mediterranean. Besides speculating upon the religious zeal of Europe as they had done so many times before, they engaged the Sultan Mamaluke to threaten the Catholic princes to massacre all the Christians of Egypt, of Palestine, and of Syria, and to destroy the holy places, if they did not immediately oblige the Portuguese to abandon their establishments in India. Camson wrote to this effect to the Pope, to the court of Spain, to the king of Portugal. This negociation did not lead to any result. Then the Sultan equipped a fleet; the constructors, the wood, the iron, and the cannons, were sent to him by the Venetians, and, in concert with the kings of Calcutta and of Cambaye, he undertook to drive the Portuguese from the shores of India. The Egyptian fleet destroyed a Portuguese one which left Cochin to return to Europe, and was in turn destroyed afterward. It was in consequence of these events that the famous Alphonso Alberquerque, to protect the Commerce of the Portuguese against the hostile attempts of the Egyptians, threatened to ruin their country forever by turning the course of the Nile into the Red Sea, where it came out of Ethiopia—a project which though impossible to execute, was not new, for in 1200, and 1348, the kings of Ethiopia made the same menace to the sovereigns of Egypt. The course of the Nile, if we can believe El Maein, was actually turned, by means of a powerful dyke, which the king of Ethiopia consented to destroy, after having deprived Egypt one year of its inundations.

Venice at last lost all hopes of destroying the Portuguese establishments in the Indian seas. In 1508 she received a new blow; the king of France, the emperor of Germany, and the king of Naples, leagued themselves against her under pretext of her alliance with the Infidels. The war of Cambrai lasted eight years. It caused Venice to lose all her important territories in Italy, ruined her treasure, and p'aced her in the impossibility of undertaking to prevent the conquest of Egypt by Selim I. In 1517 she was able, however, to conclude a treaty with this prince, in virtue of which she preserved the monopoly of the Commerce in Egypt and the right of navigation in the Black Sea. But these advantages had lost much of their importance, and the Greeks, having submitted to the Ottoman Empire, carried on a dangerous competition with her. Her merchants were tolerated in the Black Sea, but were not favored, and they were obliged to purchase by presents, continually, the protection of the Turkish functionaries, which diminished still more the advantages of their Commerce. Thus the Bosphorus was entirely closed to her when she took part with Spain against Soliman. She made many attempts to obtain entrance again, but the Turks remained inflexible. However, in 1672, Querini, her agent at Constantinople obtained, by force of presents, a treaty of navigation; but this treaty was completely illusory, and the Otto-

man ministers had scarcely received the Venetian gold, when they gave secret orders not to allow a single vessel of the republic to pass the straits. From the reign of Soliman I. the Black Sea was closed to foreign vessels.

This prince was in reality the first Turkish sovereign who had ever comprehended all the advantages of Commerce. Struck with the advantages which the admirable position of Constantinople, between the Black Sea and the Mediterranean, offered, he undertook to make her the depot of the productions of Asia. It was necessary to reopen the ancient routes of Commerce, and assure the monopoly of all the merchandise which came from Asia and Southern Africa to the coasts of Syria and Egypt. Soliman forbade any foreign vessels from loading in any of the ports of the Levant or Egypt. He employed fifty thousand men to dig the canal so often projected, which was to unite the Red Sea with the Mediterranean. He followed the plans conceived by the Venetian policy, and resolved in his turn to drive the Europeans out of the establishment they had founded in India. Bakadie-Shah, sovereign of Gaudjerat, from whom the Portuguese had taken Diu, soon furnished him a pretext. He equipped a fleet at Suez, composed of seventy-six vessels, which, after taking possession of Aden in Arabia, set sail for Diu, which they took, after an obstinate resistance. The citadel remaining in possession of the Portuguese, who forced the Turks finally to retreat, Soliman saw himself forced to renounce his enterprise. The Black Sea remained not the less interdicted to strangers.

In the eighteenth century the French embassador at Constantinople, the Marquis of Villeneuve, flattered himself for a moment that he should obtain admission for the merchant vessels of France. Desirous at first of establishing business relations in the principal ports, he obtained permission to sail barks under French colors. But the grand vizier, who had favored this project, was removed, and the new minister hastened to withdraw the permission accorded by his predecessor. In 1753 the French consul in the Crimea, struck with the advantages which the Commerce of the Black Sea offered to France, made a profound study of the elements of this Commerce, and published the fruits of his researches in a work which was very important at that epoch. He proposed the formation of a company of shareholders, whose office should be at Constantinople. He did not doubt that the French merchants would espouse the project, and thought it would then be easy to obtain permission of the Sultan, by making him comprehend the advantages which he would himself derive from this concession. But while the French consul was preoccupied with this important question, Russia pursued her projects of aggrandisement on the Black Sea, and Catherine II., after a series of triumphs over the Turks, imposed on them a treaty in 1774, in consequence of which the Black Sea was thrown open to vessels of Commerce. The steps taken by the

Marquis de Villeneuve, and by M. Peysonel, the French consul in the Crimea, had produced a sensation in England, and as soon as the English were apprised of the particulars of the treaty they solicited permission from the court of St. Petersburg, to found an establishment in the Crimea, but their pretensions were too exclusive, and were repulsed. Russia, in order to attract Commerce to her ports, offered great privileges to merchants, and soon the vessels of Greece and Italy, and of other European nations, went in crowds into the Black Sea, which resumed an activity which had been lost for so long a time. The Commerce of the Black Sea, like that carried on by the Europeans in the Turkish ports of the Mediterranean, was paralyzed for a long time by the disorders of the Ottoman administration. The rapacity and arbitrary conduct of the Ottoman functionaries gave place to a crowd of vexations, especially when the duties to be paid by foreign ships were in question. Constant and loud complaints were made. At last the European powers united in their determination to reform these abuses. For this object they concluded a treaty with the Porte in 1838, which established a tariff regulated by common accord.

The reader can now have an exact idea of the importance of the oriental Commerce by the Black Sea, and of its connection with the development of the Commerce of India, by the routes of the Red Sea and the Cape of Good Hope. The terrible struggle which has existed from antiquity until modern times, between nations, to give a preponderance of one of these commercial routes over the other, are so many phases of the grand question of the East, which at this moment agitates Europe, and the entire world. Russia, renewing these ferocious quarrels, exerts herself to her utmost to oblige the Commerce of the East to take the route of the Black Sea, and to attain this object she wishes to take Constantinople, as everybody knows, and drive the English out of India, as the Venetians, the Egyptians, and the Turks, tried formerly to drive out the Portuguese. We will now show the efforts of every kind which she has attempted or accomplished in order to realize her project, and to render herself mistress of the Black Sea and the commercial routes which connect it with India and China. Here is really the knot of the Eastern question.

The empire of Russia is the largest one ever yet formed in the world by the sword of conquerors. In Europe and Asia it stretches over one million of square leagues, and is made up of a crowd of people of different races, languages, and religion. We are accustomed to regard this variety of population as a probable cause of her ultimate ruin. Unity without doubt is force. But how many states have existed and prospered during ages in the same ethnographic condition as Russia. It is sufficient to cite the Roman empire as an example. Under the yoke of Rome were held the most civilized, the most warlike, and the most powerful of the nations of ancient times—Greece, Macedonia, Gaul, Spain, the Brit-

ish Isles, Syria, Egypt, and the half of Germany. What was her secret? A patience which nothing could exhaust, a crooked and violent policy, and a dexterous system of intervention and protection, with which she weakened by rivalry and intestine wars the people she wished to subjugate. Russia pursues a similar policy at the present day. She has the same resources as Rome for the maintenance of obedience in the countries she has conquered. If a country revolts, she crushes it by soldiers drawn from another part of the empire. It is easier for her to do this than it was for Rome. The city of Romulus had to govern the compact and redoubtable nations already named. Russia has only to hold in subjection half-barbarous tribes, who could not unite against her, and of which no one in particular is a subject of anxiety. The difference of races and religion prevents nationality of feeling. Religious fanaticism keeps the people in a constant fermentation. The court of St. Petersburg fully appreciates this. Therefore she seeks to destroy Islamism and polytheism throughout the whole extent of her empire, in order to arrive some day at religious unity, which would more closely attach the population of the conquered countries to the supreme chief of the Greek religion, who is the Czar himself. It is probable, if not certain, that when diverse people forcibly united under the Russian yoke, shall have acquired a certain development, the Muscovite empire will fall to pieces, like the Roman. Such an event cannot be regarded except as very distant. Collossal Russia will rule for ages over eastern Europe and a part of Asia. Her birth has been long and painful, and logically we are permitted to see in this fact a grave presumption in favor of the duration of the Russian monarchy.

Let the Western nations not forget—let them not sleep in a fatal indifference. Russia will never place under her yoke France, England, Spain, or Italy, nor even Germany; but she can exercise a dangerous influence over the West, and trample rudely upon our liberal and progressive tendencies, whose expansion she fears more than war or the plague. Russia does not expect to spread her conquests in the West. The Czar governs a seventh of the habitable earth ; it is not a ridiculous passion for aggrandisement that governs him; he is not tormented by the folly of conquest; the object which he pursues is a commercial one; he has already realized the dream of Rome—he now wishes to accomplish that of Carthage, and take possession of the Commerce of the world; this is what pushes the Czar to Constantinople. There is not, truly, in the whole world, a state whose topographical position can be compared to that of Russia, as regards the facility of commercial intercourse. This immense empire, bounded on the North by the ocean, on the East by Behring's Straits, Southeast by the Aral and the Caspian, on the South by the Black Sea. Stretching to China, it touches Bucharia, Turkistan, Persia, and Armenia. It is also watered by large rivers and great lakes in Europe, which are capable of being

united by numerous canals. These great advantages did not escape the view of the sagacious bishop Huet, who regretted to see them in the hands of an ignorant people, incapable of appreciating and utilizing them: "Should an adroit and intelligent prince," writes the bishop, "rise up among this ignorant people, we should see these barbarians enriched by Commerce, and soon become formidable to their neighbors." The learned Huet wrote these lines. The genius of Peter the Great appeared in the political horizon. Russia, now transformed, began to count among the great nations of Europe. Peter fully comprehended to what a point of prosperity Russia could be raised by Commerce, and seeing at one glance the Ladoga, Onega, Uman, and White lakes, and the principal tributaries of the great rivers, he had the idea of uniting them by canals. His successors continued this gigantic work, and Russia has the most extensive system of canalization in all Europe.

The object of Peter the Great was to found the power of Russia on her commercial greatness. Such has been and such still is that of his successors. We will follow them in the development of this great enterprise, attaching ourselves especially to the facts connected with the Black Sea, the real key of the arch of the policy of the Czars. We will notice at the same time their efforts to get possession of the shores of the Caspian, which, with the Aral and its tributaries, is indissolubly connected with their commercial system.

Peter occupied the culminating point of intelligence and genius in his country; but we must not suppose no one before him had sought to make use of the admirable position of Russia for Commerce. We have seen that the Arabs in the ninth and tenth centuries of our era, traversed the whole extent of Russia, to transport the precious merchandise of India, China, and central and southern Asia, to the shores of the Baltic. Europe did not lose the recollection of this, and when the new route to the Indies by the way of the Cape of Good Hope, was discovered by the Portuguese, several commercial nations proposed to Russia to renew the Commerce of the Black Sea by turning the productions of the East by that route. But Russia was not strong enough, or sufficiently advanced in civilization, to put such a project in execution.

This attempt was renewed by an English company, who, under the title of company of merchants for the discovery of new countries, under a treaty signed between Queen Mary and Ivan IV., 1555, obtained permission to navigate the Caspian; but the only useful results of this enterprise were the exploring voyages of two of the agents of this company, who gave to geographers more positive ideas with regard to the basin of the Caspian and the Aral.

Frederick, Duke of Holstein, 1633, sent a legation to Ispahan. The famous geographer, Olearius, accompanied this legation. The object of this was to induce the Shah of Persia to direct towards

the North the productions of the labor and soil of Asia; but it was without success. In his turn, the king of Sweden sent an ambassador to the king of Persia, who was also unsuccessful.

These overtures of these different governments at last excited the attention of the Russian government, and Alexis Michlailovitch, appreciating the commercial importance of the Caspian, founded Astrakan, destined to become the depot of the Commerce of Persia with Russia. Such was the situation of Russia when Peter the Great found himself master of the empire of Russia, thirteen years only after the death of Alexis. Peter comprehending at a glance all the commercial advantages which his immense empire contained, and enlightened by all the events we have spoken of, resolved to enrich his people by Commerce. He knew that the Black Sea had been for a long time the center of the greatest and richest Commerce that had ever existed; and, accustomed to great enterprises, he resolved to restore its Commerce. There is a chart preserved at St. Petersburg, on which he had traced the plan of a canal which would unite the Black with the Caspian seas. It would be necessary to conquer Turkey to realize this project. Peter had this magnificent dream. The Ottoman empire had begun to decline. The Christian subjects of the Porte were disposed to revolt.

It was thought in Europe, that the conqueror of Charles XII. would easily overturn the Crescent. The time seemed to have arrived for him to raise himself on the ruins of the Turks. Peter, profiting by these circumstances, began to discipline his troops, in order, if possible, to rule over the Black Sea.

In 1695, Russia had not a single seaport. Peter declared war against the Porte, and sent two small vessels into the Sea of Azoff. He had in his employ sailors, engineers, and artillery men, from Germany and Holland. He took Azoff, and entered into Moscow in triumph. Then appeared the first medal that was struck in Russia. On one side was inscribed "Peter I., Emperor of Russia, always august;" on the other, "Conqueror by fire and water." This was taking the position of a Roman emperor. Peter then set about creating a fleet with which he could attack the Turks in the Black Sea. He began by exacting a contribution from the Bayards, the merchants, and the Russian clergy. To realize with more certainty his project, he resolved to learn himself the art of naval construction. He came to Europe, and worked in the workshops of Saardam like a common carpenter. On his return to Russia, wishing for a port in the Baltic, he founded St. Petersburg.

The battle of Pultowa delivered him from the rivalry of Charles XII. In 1711 he attacked Turkey resolutely, but vanquished on the Pruth, he was obliged to sign the treaty of Zolkson, by which he was compelled to return Azoff to the Turks, and demolish the forts on the Sea of Azoff. The Czar did not fulfill the condition of the treaty until two years afterwards, when Great Britain and Holland obliged him by threats to accomplish his engagements.

This check in the Black Sea did not make him renounce his projects, for his iron will only became the stronger from being opposed. He desired to extend his power from India to the Caucasus. Repelled in the West, he turned towards the East. In 1719, he got possession, by treachery, of a territory dependent on Khiva, south of the Aral. A general massacre of his troops by the inhabitants caused him to lose his conquest.

In 1718, he concluded a treaty with Shah Hurrein, in virtue of which all the silk exported from Persia should be directed towards Russia. Persia was at that time fallen into a state of anarchy and weakness which singularly favored the ambitious views of the Czar. The Turks had seized all the western provinces from the Caucasus to the mouth of the Tigris and Euphrates. Peter resolved to imitate them, and to make himself master of the countries around the Caspian. The Shah, hardly pressed by the revolted Affghans, decided to ask assistance from Russia. The Czar marched at the head of 22,000 men in 1722, took Dedent, and occupied the provinces in Persia which produced the most silk. He laid siege to Bakou, and returned to Moscow to receive the honors of triumph. Hurrein was made prisoner by the Affghans, and his son Tamasp proclaimed Shah, sent an ambassador to Russia who concluded a treaty with the Czar, by which Russia was put in possession of the provinces of Magenderand and Asterbad, situated south of the Caspian, on condition that Peter should send an army to fight the Affghans.

The young Shah, enlightened with regard to the Russian policy and disapproving the dismemberment of his empire, directed a part of his army against the Russians; but Peter obstinately insisted upon the validity of the treaty, and wanted to regulate by it the frontiers of Persia, Russia and Turkey. Things were at this point when death surprised him in 1725.

Faithful to the policy of Peter, Catherine looked upon the disputed territory as belonging to Russia; but at last Russia was obliged to yield, and Anne Ivanovee abandoned the territory to Nadir Shah, who had become so powerful that the Czarina thought best to keep on friendly terms with him.

Her successor, Ivan II., did not reign, he only passed by the throne. His daughter, Elizabeth Gehonnee, was too much occupied in the West to follow out the designs of her father in the East. But she did not lose sight of them; and seeing herself in the impossibility of renewing commercial relations which would enrich Russia with Asiatic productions, she gave the enterprise into the hands of an English company, which she loaded with favors. The English did not show any gratitude; one of the chiefs passed over to the service of Nadir Shah, and organized for him a fleet in the Caspian far superior to that of Russia. In a word, this power remained stationary thirty-seven years on the side of Asia.

We must come to the reign of Catherine II., 1763, to see the policy of Peter the Great revived and fearfully extended. Catherine acted, intrigued, struggled, and combatted on all her frontiers at once. She did not conceal her designs, but declared loudly her intention to destroy the Ottoman empire, and re-establish that of the East in favor of her grandson, whom she named Constantine for that reason. In 1768 Turkey, alarmed by the ascendancy of Russia in Poland, demanded the evacuation of that country by Catherine, and on her refusal, declared war against her. The empress was prepared for it; her fleet—commanded by Elphinstone, an Englishman—crushed the Turkish fleet in the Bay of Tcherme. The conqueror wished to profit by his triumph and force the strait of the Dardanelles, and bombard Constantinople, as he had promised to Catherine. The success was not doubtful; but Alexis Orloff, chief of the expedition, jealous of Elphinstone, would not consent. The Russian squadrons had at the same time stirred up Greece, Syria and Egypt; for Catherine wished to ruin Turkey on all sides at once; and the army of the Sultan experienced constant defeat. This war, so fatal to Turkey, was concluded by the treaty of 1774, which gave to Russia the free navigation of the Black Sea, that even of the Dardanelles, where, however, she could only have one vessel of war, beside Azoff, Toganrog, Kerch, Kinburn, the Kouban—all the country situated near the Don and the Bog, and a considerable idemnity for the expenses of the war. Catherine made the Porte also acknowledge the independence of the Crimea. She thus deprived the Turks of the powerful reinforcements they drew from this country; moreover, in case of necessity, she could invade the peninsula, and the Sultan could not place any obstacle to her intentions.

It is thus Russia continues to act at the present day. To reign supreme in the Black Sea and the Caspian, it was necessary to occupy the vast countries extending from the Don to Persia and Armenia. The power of Catherine was acknowledged by the tribes of Kouban Fenck, the two Kabardies, and those north of the Caucasus.

The Caucasians still remained to be conquered. This was not to be done by force. She laid a train which would make a future conquest easy. She persuaded the petty princes of the country to accept her protection, not forgetting to sow dissensions among them. She used the same policy towards Persia, and prepared to put the projects of Peter the Great, with regard to the provinces west of the Caspian, in execution, and kept in this sea a fleet to which orders were given to burn all the Persian ships, even the timber for building them, so jealous was Catherine of rivalry in the dominion of this sea. While establishing this policy for the middle of her empire, she had accomplished the first dismemberment of Poland in concert with Prussia and Austria. This first attempt

scarcely excited any interest in Europe, and Catherine, rendered stronger by their inertness, meditated vast projects.

She determined to replace the Cross on the dome of St. Sophia. She had nothing to fear from Prussia, and had persuaded Austria to accept some fragments of the magnificent spoils which she had in view. Sweden had consented to sign the treaty of neutrality in case of war between the Porte and Russia. Catherine believed herself at the point of realizing the great dream of Russia. But it was necessary before commencing an open attack on Turkey, to get possession of the Crimea. To accomplish this, nothing more was necessary than a ruse of diplomacy, which Catherine understood marvelously well. The Khan Dewlet Gherai was entirely devoted to Turkey. A sedition, adroitly fomented and conducted, drove him from his country, and Sans Gherai, raised to his throne by the Russian influence, naturally placed himself under the protection of the Czarina.

Soon after, new troubles arose in the Crimea, and Catherine sent an army of 60,000 men to the assistance of the Khan. The Russian army took possession of the whole Crimea and the fortresses. There was nothing more to be done but to force Sans Gherai to abdicate in favor of Catherine (1783), who settled on him a pension of 300,000 roubles, which they soon ceased to pay. The Czarina bestowed the honors of triumph on her commander, Potemkin, who caused to be inscribed on a guideboard at Cherson these words which contained the whole policy of Russia: "The road to Byzantium."

The same year, 1783, Heradius, Prine of Georgia—although this province belonged to Persia—acknowledged himself the vassal of Russia, who engaged to maintain him in the possession of his States and all the territories which he might acquire at a later period. Soloman, Prince of Iremelia, soon followed his example. Turkey becoming, with reason, anxious, prepared for war; but too feeble to measure her strength with Rnssia, accepted the mediation of France, and concluded the treaty of Constantinople with Catharine, 1784, which assured the possession of the Crimea to Russia, also the Island of Taman, and the greater part of Kouban.

In 1787, the Porte learned that treaties were no barriers to the ambition of Russia; she declared war against this power, whose destruction appeared to be seriously threatened. Catharine had secret conferences with Joseph, Emperor of Austria; and, notwithstanding all the precautions for secrecy, the subject in question was nothing less than the expulsion of the Turks from Europe, and the raising upon the ruins of a Greek empire in favor of the Grand Duke Constantine. Russia at the same time sowed sedition in Moldavia and Wallachia; she excited a revolt in Greece, and treated secretly with the Mamalukes of Egypt. The Turks commenced hostilities; the fortune of war was in favor of the Russians, who

were electrified by religious fanaticism, and proud of being the heroes of a holy war and a new crusade.

Catherine offered the possession of Egypt to France as the price of her co-operation. During these negociations, the Russians continued their victorious march. Potemkin took possession of Oichakoo, at the mouth of the Dnieper, a place of great importance, and razed it after a horrible massacre, which cost the lives of 25,000 persons, 1788. The Sultan Abdoul Hamid died four months after, and was succeeded by Selim III., who continued the war with more firmness than success. The Russians went on, always triumphant.

In 1790, Suvarrow took Ismail, on the Danube, after an obstinate resistance, and massacred without pity. Out of a garrison of 40,000 Mussulmen, scarcely a man escaped to carry the news of this great disaster to Constantinople. Such great success made Europe tremble. Sweden declared war against Catherine; Prussia put an army into the field; and England, beginning to understand more clearly the policy of Russia, equipped a powerful fleet destined for the Baltic.

"Since your government seems to wish to drive me from St. Petersburg," said Catherine haughtily to the English ambassador, "I hope at least they will allow me to retire to Constantinople." The Russian army at that moment marched upon Constantinople.

But the attitude of Europe frightened the Czarina, even Austria abandoned her. She arrested the march of her troops, and signed the treaty of Jassy, 1792, with Turkey, which cost this power all the country between the Bog and the Dniester; this last river was to form the boundary of the two empires. The Porte also acknowledged the sovereignty of Russia over Georgia and the neighboring cantons, and confirmed her ancient privileges in the principalities of Moldavia and Wallachia. To immortalize her triumph, Catherine founded Odessa, which has since become a city of great importance. She died four years after, equally great and powerful as Semiramis and Margaret of Waldemere. Catherine had directed, towards the end of her reign, a successful expedition against the Persians, who had taken a part of Georgia, where her vassal Heraclius reigned; but death surprised her in the midst of her vast projects.

Paul I. succeeded Catherine. This prince recalled the Russian army, and by an inexplicable caprice ordered the evacuation of all the places his mother had conquered. However, in 1800 he published a ukase, confirmed the following year by Alexander, by which Georgia was definitely incorporated with Russia.

At this time a fearful struggle held the world in suspense. Europe entire was leagued against France. Russia found herself almost at the head of this confederacy of nations. It would be supposed that this would have arrested her projects of aggrandisement; but Alexander sent troops into Caucasia, and continued his con-

quests. In 1805 one of his generals took a Persian province, although the Russians had been at peace seven years with Persia. The Shah, not able to resist the Russians, implored the assistance of Napoleon, whose glory filled the world. In 1805 a French ambassador was sent into Persia (M. Jaubet,) to inquire into the situation of the country: and the Persian government charged Mirza-Reza with an embassy to Napoleon, whom he accompanied to Tilsit, in 1087. Napoleon thought of nothing less than the destruction of England at that time, as Russia did that of the Porte; he comprehended the assistance he could receive from Persia, in case he concluded to take the Indies from the English. He concluded a treaty with the ambassador of the Shah, and sent General Gardanne to introduce European discipline into the Persian army.

England was much moved by this intelligence; and the Governor of the Indies sent an ambassador immediately to the Shah to counterbalance the influence of the French. It is since that time that Persia, the western barrier of the Indies, acts in concert with Europe, and has become the political battle-field of the cabinets of St. James and St. Petersburg. The treaty of Tilsit astonished Europe; the alliance of Alexander and Napoleon appeared an indissoluble problem.

But were not the two emperors united on the same idea? Could the gigantic commercial plan of Russia be accomplished so long as the English were masters of India? The project of Napoleon for the invasion of England—had it not preoccupied Catherine II. in the last years of her reign? The annihilation of the Commerce of Great Britain—would it not profit Russia as much as France? Napoleon needed the assistance of Russia to crush his enemy. We therefore see him giving up Poland, the ancient ally of France, for the alliance with Russia. Alexander had recommenced the war against Turkey; but Napoleon took the Porte under his protection and stipulated for the immediate evacuation of the Danubian principalities. Napoleon would not, at any price, abandon Constantinople to Russia, not even for the consideration of receiving as indemnification Syria, Egypt, and the Turkish islands in the Mediterranean. The peace which the treaty of Tilsit had procured for Turkey was of short duration.

Alexander recommenced the war, was victorious, and offered peace on condition that Turkey should yield to him Wallachia, Moldavia, and Bessarabia. The Divan refused, and hostilities were about to recommence, when Napoleon prepared to carry war into the heart of Russia, and Alexander, on the eve of taking the Danubian principalities, was constrained to terminate the campaign.

By the treaty of Bucharest, 1812, Alexander evacuated Wallachia, Moldavia and Bessarabia, which carried the Russian frontiers to the Dnieper and the Pruth. Russia became mistress of the mouth of the Danube which she had so ardently desired. She engaged to restore several strong places on the Black Sea to Turkey,

but she did not fulfill her engagement. Russia had continued to gain on the territory of Persia, and had in reality extended her empire south of the Caucasus; her frontiers extended on the shores of the Caspian as far as Ghilau; all the basin of the Kur or Cyrus, belonged to her. It required but a step to reach Armenia, and she stayed under arms on the limits of Persia and Turkey in Asia. The French empire fell with an astounding crash. The powers leagued against Napoleon concluded the treaty of Vienna, which had the pretension of setting upon a solid basis the interests of the different nations of Europe. Amid all the concessions and restitutions made by the contracting parties, Russia alone preserved all her conquests. She was ambitious of making new ones, and not being able to take by a single blow, she sought to enfeeble them by successive dismemberments. The Ottoman empire, composed in part of a Christian population, offered a great field for intrigues. The Danubian principalities were always kept in a state of agitation, and since the time of Catherine II. there had been a constant attempt to reanimate the spirit of nationality of the Greeks and excite a war of independence in the Hellenic peninsula. It was she who gave the impulsion to the great insurrectional movement of 1821, which resulted in the creation of a new State in Europe.

She first offered an army of Cossacks to the Sultan to quell the revolt. The Divan had the good sense to refuse to accept it. Russia insisted, claiming the right to interfere between the Sultan and his Christian subjects. The Congress of Verona, in 1822, decided otherwise. The Greek insurrection soon excited the most lively sympathy in Europe. Russia then espoused the popular side of the question, and wished to become the liberator and protectress of the Greeks. England and France did not fall into this snare, but they forced the Czar Nicholas to sign a protocol, by which the three powers mutually engaged not to take up an armed intervention in the struggle between the Greeks and the Ottoman empire. While the attention of Europe was fixed upon Greece, Russia sought a new quarrel with Persia; war was declared, and lasted during the autumn of 1827, and always to the disadvantage of Persia. In the winter of 1828 the Czar dictated the treaty of Turkomanlchai, which gave the Araxus for the boundary of Russia, and thus detached several rich provinces from Persia. Besides, Persia engaged to pay an enormous sum to idemnify Russia for the expenses of the war.

Public opinion had forced Europe to abandon its neutrality, and sign a treaty in 1827, by which France, England, and Russia engaged to settle by arms, if necessary, the differences between Greece and the Ottoman Porte.

The Sultan granted the Greeks the privilege of governing themselves on condition of their paying him an annual tribute. Nicholas determined to make war again on the Ottoman Porte. Hostilities were commenced in 1828, and continued the greater part of

the year following. Never was a war more disastrous for the Porte. The Russians advanced to Adrianople on one side, and to Ezeroom on the other; Constantinople was threatened, and the Ottoman empire was on the brink of ruin. But the European powers again arrested the progress of Russia; the war terminated by the treaty of Adrianople, which gave many privileges to Russia, and an indemnity for the expenses of the war—more than one hundred and ten millions of francs.

The treaty of Adrianople was hardly concluded, when Nicholas, resuming the project of Peter the Great, decided the Persian government should join with him in the conquest of the Khanal of Kkiree. The Russian troops were assembled for this expedition, when the insurrection in Poland obliged them to be sent in another direction. Catherine II. had endeavored to withdraw Egypt and Syria from the dominion of the Sultan. Russia had, without doubt, forgotten this intention of the empress. When a soldier of fortune, with no other resources than his genius, gained such great power that he dared to dictate to the Porte, to whom he was only a vassal, the Sultan had promised Mehemet Ali to give him the possession of Syria as the price of his services in the war in the Morea. Besides always asking, without obtaining the fulfillment of this promise, Mehemet invaded Syria; his son, Ibrahim Pacha, advanced victoriously to the center of Asia Minor. The cabinet of St. Petersburg offered her services to the affrighted Sultan; but he preferred addressing himself to France and England; but not obtaining their assistance, was obliged to accept that of the Czar. The Russian fleet appeared in the Bosphorus, and no longer fearing to see Constantinople fall into the hands of the Egyptians, remained quiet.

At bottom quite glad of the success of Ibrahim, the Czar made his own terms with the Sultan, and left to the other powers the care of imposing conditions on the victorious Egyptians. The Czar obtained almost a protectorate over Turkey; beside, the Czar had the right to exact of the Sultan to exclude from the Dardanelles and the Bosphorus all the vessels of war belonging to foreign nations, the moment Russia should be at war with any maritime power, while Turkey was forced to receive the Russian fleets without any obstacle. But the other powers opposed this treaty, and Russia was obliged to yield her pretensions on this point. Nicholas also failed in his attempt to gain the Caucasian provinces.

This is what Russia has done since the time of Peter the Great for the accomplishment of the most gigantic commercial project that a nation has ever dreamed of. Her success has been equal to her ambition; for in half a century, since 1772, she had added, either in Europe or in Asia, immense territories of five or six times the extent of the whole of France.

Before concluding, we will take a hasty view of the commercial relations of Russia with the different countries of Asia, and of the

routes by which she purposes to bring this prodigious commerce to the Black Sea. The Czars have neglected no means to create commercial relations between their States and China. The first Russian embassy was sent to China in 1656. It was organized by the Governor of Tobolsk, and only served to make known the itinerancy to be followed. Very soon, the Russians and Bucharians formed associations to develop the commerce of the Celestial empire; and in 1670 a great caravan left Tobolsk for Pekin, and arrived there without difficulty. This expedition was very lucrative, opened entirely the road to China; and the caravans succeeded each other from that time with regularity. But in 1684 a quarrel arose between the Russians and Chinese, which was followed by hostilities which interrupted their commercial transactions. Peace was established in 1691. Peter the Great obtained permission to send a caravan which should not exceed 200 men every year to Pekin. During twenty years the caravans realized great profits ; but the Russians committed excesses which made the government anxious, and they forbade their entrance into Pekin. In 1719, the Czar soon repaired the injury, and the caravans again took the route of the capital, until new disorders committed by the Russians caused them to be forbidden entrance into the Celestial empire, 1792. The commercial transactions between China and Russia had acquired too great importance to allow them to be interrupted. A treaty, signed in 1787, between the two governments fixed upon a place upon the frontiers where the merchants should transact their exchanges. They chose Kiatka, on the Russian frontiers, and Zoucoulkai, on the Chinese frontiers; and it is there at this day that all the commercial operations take place. The Russian ambassador even obtained permission to send royal caravans to Pekin. But the Russians did not show themselves to be wiser than in former times, and the angry Chinese caused the guilty ones to perish; the Russian government dared only to show its dissatisfaction.

In 1770, 300,000 Kalmucks, dissatisfied with the Russian government, left the shores of the Volga, where they were established, and traversing the desert, demanded an asylum from the Chinese emperor Kiaw-Loung, who received them with cordiality. Catherine II., who reigned then in Russia, protested energetically against this. But the emperor paid no attention to this, and received other Kalmucks who soon after abandoned the Russian territory, and refused entirely to allow the royal caravans to come to Pekin; but commerce went on without interruption on the frontiers. The Russian caravans carry the furs of foxes, beavers, castors, of Kamkschatka and of America, coral, clocks linens, woolen cloths, wool, leather, looking-glasses, glass, &c., and give them to the Chinese in exchange for silk, precious stones, tea, cotton, rice, porcelain, rhubarb, gauze-crape, mourning-grape, musk, anniseed, silks with threads of gold, velvets, tobacco, sugar-candy, preserved ginger, pipes, combs, dolls made of silk and of porcelain.

In the time of Catherine this business was valued at 20,000,000 of francs, equally divided between the Russians and Chinese. The business has constantly progressed ever since, and in 1850 the Russians exported to China 28,000,000 francs' worth of merchandise. The caravans of Kiatka have not alone the privilege of the commerce between China and Russia; the independent Tartars carry to Oremberg and Troizkai the provisions which they purchase in India and China. A part of this merchandise, and of that brought by other caravans from Thibet, from India, from Khiva, from Bokhara, from all central Asia, from Persia, from Georgia, from Armenia—arrive at the great fair at Nijnei-Novgorod, at the confluence of the Volga and the Oka, where, it is said, 600,000 merchants assemble. To give an idea of the importance of the commerce of Russia with the different countries of Asia, it is sufficient to say that she imports by the Caspian 8,000,000 francs' worth of merchandise, to which must be added about 10,000,000, to represent the productions which she receives by land from the Turkish and Persian provinces. She buys 116,000,000 francs' worth of Chinese productions, and brings from Bokhara and Tartary 76,000,000. Her exports by land to Asia amount to 170,000,000 of francs.

It would be easy for Russia to bring all this commerce to the Black Sea, without doing any prejudice to her provinces in the north of Europe. She is doing everything for the accomplishment of this result, and nature has traced the route by which this immense commerce would easily flow into the Euxine. The most considerable rivers in Russia—the Dnieper, the Dniester, and the Don—empty into this sea; and with them, all the agricultural and manufacturing riches of Russia would descend into the Euxine, attracted there by the merchant vessels of the maritime nations of southern Europe, of western Asia, and of the north of Africa. In order to prevent any obstacle to this powerful current of commerce, which would bring to the south the productions of the northeast of Europe, the rivers just mentioned were connected with the Baltic and the White Sea by means of a vast system of canalization, conceived and commenced by the genius of Peter the Great.

The Danube alone could bring into the Russian ports of the Black Sea the commerce of a large part of western Europe; for the Danube, united to the Rhine by the canal Louis, which puts it in direct communication with France, Belgium and Holland, offers to commerce the most direct line of communication between Europe and Asia. The Caspian is connected with the Northern Sea by means of an immensely important canal, which joins the Volga to the Msta, a tributary of the Volchov, which falls into the Lake of Ladoga. This lake communicates with the Baltic, (Gulf of Finland;) the Volga itself is connected with the Lake of Ladoga by the Canal of Tchkvin; and the canals of Koubensk and of the north unite the Caspian with the White Sea.

However great the importance of this network of canals in Russia in Europe, still they do not suffice to carry out but a part of the commercial projects of Peter the Great. It was still necessary to bring Eastern Asia and the Black Sea into communication with the Caspian Sea. Peter, as we have already seen, had traced on a map the plan of a canal between these two seas; this was no more than the renewal of the project of Seleucus, of which we have spoken in its place. At a later period he decided to join these seas by means of a canal between Clavlia, a tributary of the Don, and the Kamychenka, a tributary of the Volga—an enterprise which had been attempted by the Venetians and the Tartars of the Crimea.

There were great difficulties to overcome before completing this canal, for the Don is higher than the Volga. But Peter undertook to overcome them, and employed an English engieer named Perry, who, after three years' labor, was obliged to abandon it to complete fortifications of immediate necessity. Catherine II. caused the enterprise to be carried on for two years ; but the Ravine of Peter the Great, as it is called, is still unfinished.

Now, it is probable a railroad will take the place of a canal. The Black Sea has already become almost a Russian lake. The Caspian belongs to the Czar, for Persia has lost the right to keep an armed force there, and her communication with the Black Sea becomes at once of the greatest importance to Russia. Besides, the Caspian receives the Volga, that immense stream which traverses all southern and eastern Russia, which, by the aid of the Kama—one of its tributaries—is connected with the Ural Mountains, so rich in mines of gold, platina, iron, and copper ; also the rich productions of all eastern and central Asia, of Persia, of Armenia and the neighboring countries, flow into the Caspian by different routes. Now, to carry out the commercial views of Russia, it remains to put the Caspian in direct communication with all central Asia as far as India and China. Nature had primitively established this immense line of communication, by making but one great internal sea of the Aral and Caspian. Ever since the epoch of the separation of these two seas by the vast steppes of Manquischlaks, a communication still existed, if it is true that as late as the tenth or eleventh century of our era the ancient Oxus (Amou Daria) emptied into the Caspian, placing her in direct commuication with the southwest frontiers of China and the north of India; but in the present day this river empties into the Aral, but still could, by its numerous tributaries and by caravans, easily bring the productions of Chinese Tartary, of Thibet, of Cashmere, and of India, by Khiva, to the Aral, which receives the Scria Daria, (Jaxade,) which is the route of an active commerce, and the best communication with the table-lands of China, Turkistan, southern Russia, and the Black Sea.

From the preceding, it is easy to understand the efforts made by Russia to get possession of Khiva, which is at the head of the Amou Scria (Oxus.) Once mistress of this place, Bokhara would soon see her at her gates, and Khokanee, which is near, would become her prey. Then she would at pleasure direct the caravans of China, of Thibet, and of India. After that it would be easy to create a communication between the Caspian and the Aral, and the Black Sea would be connected with the extreme east. Independently of the facilities of communication by water just mentioned, a prodigious quantity of merchandise would come by caravans from the east to the Black Sea.

In two hundred days, the caravans can make the journey from Chin-Si, on the western frontiers of China, to the eastern shores of the Caspian. From there the numerous steamers can easily transport the merchandise to Astrakan. A large part of the commerce of western Persia, of Armenia, of Mesopotamia, and other countries bordering on the Tigris and the Euphrates, on the northeast of Asia Minor, goes to the Black Sea, and Trebizond is its principal depot. Now, Trebizond is within a few leagues of the Muscovite frontiers. Russia is preparing to extend herself on the south. She already covets Kurdistan and Armenia, would like the possession of the Tigris and the Euphrates, so important to her commercial interests; and in 1829, during the war against the Turks, Gen. Paskiewitch, who was at Ezeroom, had the intention for a moment of taking possession of Bagdad, rendered an important city by its commerce with Egypt, Arabia, India, Turkistan, and Persia, and depot of the merchandise from the East, which is directed to Syria, Asia Minor, Trebizond, and Constantinople.

Russia, in order to firmly establish her commercial power, tries, like an immense polypus, to stretch her thousand arms over the eastern world. At the same time she attempts to naturalize in her provinces all the industrial arts of the west, and has made a real progress, which is easy to be proved, and of which Europe makes too little account. The Czars, in their haughty pride, do not wish to be obliged to have to ask anything from the rest of the world, and profiting by the different climates united in their vast empire, endeavor to cultivate the productions of every clime. They have no colonies for the production of sugar; but the provinces of Orel and of Sacalof are covered with immense plantations of beets, from which sugar is manufactured. Their southern provinces furnish wheat for part of the west; in 1850 the exportation was enormous. The northern provinces produce prodigious quantities of flax and of hemp. Cotton is cultivated in Georgia and the country taken from Persia; since 1845 indigo has been introduced into the Caucasian provinces; merino sheep by hundreds of thousands are all around Moscow, towards the Baltic, and on the shores of the Black Sea—they prosper everywhere, and produce abundantly. Silk is

produced in the southern provinces, and in 1833 the emperor Nicholas caused 4,000,000 of shoots of the mulberry-tree to be planted. The gold mines of Asiatic Russia are very productive, and furnish annually 100,000,000 of francs to the treasury. Finally, the Czars wished to have their wine independently of France, and the Crimea is covered with vineyards.

We look with astonishment, and almost with fear, at the rapid and powerful development of Russian activity; for the genius which has given and still gives impulsion to this great movement of Oriental Slavism is not the friend of liberal institutions, or the tendency of the people towards political and religious emancipation. Any nation whatever that rises, marches onward in grandeur and prosperity, has a claim to our respect and to our sympathies; but in Russia, it is not the *people* that rise—it is the *autocrat.*

Now, Great Britain incommodes and paralyzes the realization of the commercial plans of Russia. All the diplomacy of Europe cannot prevent this, for it grows out of the necessity of expansion, which is the life of England. For Russia there is but one solution to this problem. England is one too many in the world—she must be put down; and the Czars have declared a deadly war againts her. Till now it has been in secret; but now it is broken out, and has for its theater Persia, India and Constantinople.

Indeed, on whichever side Russia turns, whatever may be the designs she meditates or the enterprise to be accomplished, she sees England instantly hurrying on from the West to dispute the prey with her. If the Czar brings the merchandise of Persia and Armenia into the Caspian, England glides into the port of Trebizond, gets a part of this merchandise, and sends into their country two millions sterling of the productions of her manufactures. to the prejudice of Russia. Does the Czar try to monopolize the commerce of China, the English are there to dispute it with him; does he wish to make the precious merchandise of Thibet, Cashmere, Lahore, &c., pass by the western route, the English bring them by the way of southern India.

Indeed, Russia finds herself frustrated by British activity even at her great fair of Nijnei-Novgorod, in the center of her European provinces. Merchants from all countries of Asia come by thousands to this celebrated fair, where they formerly supplied themselves with goods manufactured in Russia; but latterly they only sell their own merchandise, without buying anything in return, because they prefer, with good reason, those which England sends throughout all Asia, by India, Persia, and China. It can easily be understood that Russia should wish to get rid of this dangerous rivalry.

It would be a great error to suppose that a secret arrangement between St. Petersburg and England could take place, giving Constantinople to the Czar and Egypt to England. This would not be allowed by France, and is diametrically opposite to the policy

which Russia has always followed; for to favor the occupation of Egypt by England, would double her power in India, from which Russia wishes to drive her in order to substitute the Black Sea for the route to India by the Cape of Good Hope or by the Arabian Gulf.

The English are aware of the danger which manaces them. They fear constantly to see the Russians extend their dominion over Persia, and take possession of Herat, which is the key of India.

Napoleon, who had thought of driving the English from the shores of the Indus and the Ganges, thought the enterprise could easily be accomplished by Russia, and said to O'Meara, that the Czar could take this country from England in the first year she would be at open war with her. It can easily be understood how poignant the apprehension of such a catastrophe would be for England. She counts 128 millions of inhabitants in her colonies and dependendies. India alone includes 125 millions of her subjects. How fatal to England, that has already such numerous dangers threatening her existence at home, would be the loss of this country, so rich in its productions, and which offers her a market unequaled in the world. But England has powerful means of resistance; she can annihilate the fleets of the Czar, destroy his ports in the Black Sea and in the Baltic, and force him to an honorable peace. Besides, England is not alone; she is aided by the sword of France, who has an equal interest in preventing Russia from coming into the Mediterranean.

The Czar, if allowed to resuscitate the ancient commercial importance of the Black Sea, would create a monopoly for himself, which would weigh heavenly on the nations of Southern and Western Europe; the custom-houses on the Bosphorus would naturally protect Russian industry, by imposing heavy duties on the manufactures of other countries. Asiatic productions would arrive in Europe subject to onerous duties, for the Russian government has always been remarkable for the exaggeration of its custom-house taxes. In 1844 the revenue from the customs formed almost a third of the receipts of the royal treasury.

Europe, that has carried the devolopment of commerce and manufactures to such a high point, and has based them on the principle of the liberty of the seas, cannot oppose with too much energy the projects of Russia, which in advancing towards Constantinople, threatens alike her moral and material interests.

ARTICLE IV.

Agricultural Resources of California.—Soils and Productions of Los Angeles.

We are indebted to Dr. Trask, State Geologist of California, for a copy of his Report on the Geology of the Coast Mountains; embracing their agricultural resources and mineral productions. Also portions of the middle and northern mining districts. In this as in the first report of Dr. Trask, which we noticed about a year ago, we recognize a happy application of science to practical objects, which is calculated to make his labors of great value to the country at large as well as to his own State. We copy from this Report the following notice of the "Plains of Los Angeles," which to our mind, are infinitely more attractive than all the gold west of the Rocky Mountains.

SOILS AND PRODUCTIONS OF LOS ANGELES.

The soil and productive capacity of these plains will now be considered; for in these alone consist the present and prospective value of these lands. Referring back to the rocks composing the mountain chain, which forms the northern borders of these valleys, we can readily infer what would be the constituents and general features presented in the coverings of the plains. The diagram exhibits two distant terraces, the lower one occupying a little more than one-third of the transverse extent of the plain, the upper terrace holding a much greater inclination from the borders towards the center, and the whole having an average grade of about 13 feet per mile from datum to the level of the City. On examining the hills either at San Pedro or between the City and the mountains, we shall find most distinct outlines of other terraces rising above the levels of these plains, to the number of two or three, beyond which this characteristic is not clearly defined.

These terraces play an important part in modifying the characters of the soils upon the plains adjacent, and as a consequence affect the productive capacities of the lands as far as their direct influence extends. A peculiar and striking feature found in the soils of these plains is, that even to the base of the mountains or their foot-hills the components of the earth are found as finely comminuted as at any point near the center, or upon the lower alluvial bottom in the vicinity of the settlement known as Banningville.

Along the northern base of the low mountains of San Pedro the same features occur, and as far toward either extremity of the plains as an opportunity offered for an examination, this peculiar-

ity presented itself. From the great preponderance of the primitive rocks (and those mostly granite,) in the mountains, and from which the soils of these plains have been derived, we should *a priori* have been led to suppose that a coarse, harsh and almost worthless range of country lying at their base would have been found, but quite the reverse of this is true, and a soil both soft and mellow covering these plains is found in its stead. It is very doubtful if a soil more fertile, and capable of greater production, is to be found anywhere along our Pacific coast south of the Isthmus of Darien, independent of the influences of climate. The depth to which this soil extends below the surface ranges from 18 inches to six feet—the average depth is about 3 feet; the color is usually of a dark grayish brown when dry, and on close examination it is found to contain a great quantity of decomposed vegetable matter, consisting of the dead roots and stalks of its indigenous productions. In many places it would remind a person of some of the rich moulds formed in small quantities in the ravines of hills producing luxuriant vegetation. On the lower bottoms this soil is mixed with a fine micaceous sand which renders those districts highly fertile. It is upon these lands that the major part of the extensive grape crops of this County are produced; and a mere inspection of the ground alone, when free from moisture and unconnected with the crops it is capable of producing would be very apt to be considered unproductive and worthless. On these lower bottoms and beneath the soil there is found a bed of stiff blue clay; when the waters are turned off from this earth, and the sun is permitted to dry the surface, a white efflorescence is often observable over considerable areas. This efflorescence consists of the salts of potash and soda, the nitrate of potash forming an important article in the crystalization. In other parts of these bottoms the principal salts thus found upon the surface are composed mostly of the carbonates of potash and soda, and much smaller proportions of nitre. It is a singular fact that on many of those lands covered by these salts in such quantities as to give the earth a white appearance, plants and vegetables requiring much nitrogen for their healthy propagation are found to flourish far better than upon many other apparently more favorable portions of these valleys.

The active fertilizing agents contained in the lands of these plains have been derived from two sources; first the alkaline salts from the decomposition of the primitive rocks, (the granite furnishing the soda and potash, from the segregation and subsequent destruction of the felspar contained in them;) secondly, the lime and nitrous constituents have been derived from the marine fossiliferous rocks resting upon the former; with the destruction of mammalia which were abundant in the earlier periods of the Miocene tertiary. The greatest proportion of the latter salts, however, were probably derived from the marine Mollusca which undoubtedly lived and died in the materials in which we now find them remaining im-

bedded, and as these remains constitute large beds of rocks at the present time, we should find them fully adequate to produce the fertilizing salts above mentioned.

The great amount of vegetable matter intimately commingled with these salts and earths upon the surface of these plains, it will be seen would render this district of country capable of an abundant production, and whether applied to agriculture or horticulture, or to its present grazing uses, it will still be found capable of supplying even in its unimproved natural condition a sufficient sustenance for ten times its present numbers of flocks and herds. A very small amount of artificial aid in the improvement of these plains would add greatly to the richness and expansion of the pasture grounds, and would prevent the present necessity for the wide roaming now so prevalent among the stock which is placed to graze in this broad unfenced surface of country. One example of the rare capacity of these soils is exhibited, both in the higher and lower plains of this and the adjoining counties, in the luxuriance of the growth of the native productions. Among the indigenous growths, is a plant known as the "*Burr Clover*," which spreads over the valleys and up the sides of the hills; this plant produces a great quantity of seeds in its small "burrs," which, as the stalk dies, is distributed upon the ground at times covering it to the depth of a half inch. (Allusion was made to this plant in my report of last year when speaking of the productions of the Salinas Valley.) The cattle and horses find in this seed a nutritious food upon which they subsist during the dry season, and of which they seem to be remarkably fond, whilst their fine condition after living upon this alone, attests the cereal richness of its qualities. The traveler unacquainted with the ground over which he is passing would be both puzzled and surprised at the fine appearance which the herds present, especially when he is informed that the apparent desert upon which he sees them is all they have upon which to feed; for in passing over a district of country on which not a blade of grass or any other edible plant is visible for miles, and the surface of the ground has more the appearance of a burned prairie than any other, being of a dark ashy gray color, no stranger to the nature of our soils and seasons would for a moment suppose the land could be ever applied to any valuable use or cultivation. The color of the surface is that of the seed mentioned, which, as before stated, covers the ground in great quantities. This fact alone would be a sufficient evidence of the fertility of these plains did no other exist to which we might refer, and it is to be much doubted if any other part of the world possesses a degree of fertility to that extent that the seeds of its indigenous productions alone scattered broadcast upon the plains are capable of supplying with nutriment over 100,000 head of neat cattle and 20,000 head of horses, with sufficient to keep them in the best marketable condition for months without resort to other subsistence. The stock of these plains at

the present time, is not over twenty-five per centum of that which they probably maintained some six or ten years since, and for which there was always an abundant supply. Those only who are familiar with this part of the State can fully appreciate its productive capacities, and they can be realized only by visiting and subjecting its natural resources to the strictest scrutiny; this done, and I have no fears but the above remarks will be fully endorsed by all who make the investigation.

The culture of grain upon these plains warrants the most sanguine anticipations, and so far as the experiment has been made, the yield has been largely above the average crops of the more northern districts, and should success attend the experiment of the introduction of water for irrigation, full thirty per cent. of these plains may be applied to the rearing of cereal crops, and leave a large margin still for pasturage.

The advantages of water near or on the surface in this section of country is manifested in the experimental crops of last year on the "*Monte*" a few miles east of the City. The corn crop of this locality, comprising about 1800 acres, was immense in its yield as in the size of its stalks; a large proportion of it was planted late in the season, but notwithstanding this, the ear was full-formed and well filled in the month of October, and the crop still in the silk. It was no uncommon circumstance to find six full ears on one stalk, and the number of four was much more frequent than any figure below it. I think that it may be safely estimated that the *Monte* lands will yield an average crop of sixty bushels to the acre.

These facts are noticed more particularly as corroborative of what has been advanced respecting the fertility of this line of plains, and with evidences such as have been adduced on so grand a scale as a mere experiment, there seems but little room left to doubt the high qualities for production which these lands will exhibit, should they be tilled with judicious management.

We come now to the consideration of the exotic productions of this part of the State. The position of the mountain chains which separate this part of the State from the districts north of it, their trend and altitude are productive of far different climatal conditions from those noticable in any other portion of the country. After passing Point Conception upon the coast, or crossing the last ridge of the San Bernardino chain, in traveling from the north, the traveller is ushered into a widely different climate from any with which he has before become acquainted. The atmosphere is entirely divested of that harsh coldness which is found on the seaboard and to some distance in the interior, and at the same time is unaccompanied with that scorching heat incident to the plains and valleys situated among or lying to the east of the ridges comprising the coast mountains or their spurs and ranges. From these circumstances it will be seen that a different class of products would

naturally be found, and that exotics of a more southern nativity would flourish while their destruction would be almost certain beyond this chain. First among the exotic growths of Los Angeles, is the sweet orange; this tree is found to flourish well without any artificial protection from the atmosphere, and attains the height of forty feet, and in some cases even more than this; its fruit is fully equal to any imported article which has yet arrived in this country. The tree produces bountifully, and is in fruit throughout the whole year. The fruit is generally large and plump, with the pulp well filled, there is not the slightest evidence of anything uncongenial connected with its appearance, it may be said truly to have become habituated to our climate, or to have found in it the kindred qualities of its own tropical native home. I have seen the young tree of two years from the seed producing full, well matured fruit. During the palmy days of the old Missions, they were in the habit of cultivating somewhat extensive groves of these trees, but since their decline, the trees and their culture have been neglected, and the groves in many instances cut down. It is a pleasing fact to know that the attention of American citizens resident in this portion of the State are turning their attention to the propagation of this delicious fruit, and it will be but a very few years before our markets will be supplied from domestic sources entirely. In the cities of Santa Barbara and Los Angeles and the adjacent Missions I have seen the orange tree forty years old, and in some few instances much older.

The citron is also another fruit belonging to the same natural family, and was formerly cultivated to a considerable extent, and flourishes well at the present time. I have seen this fruit in the gardens of private residences growing to the size of six inches in length by three inches in diameter, its weight could not have been less than two pounds.

The date tree, fig, pine, apricot, guava, pomegranate and kindred fruits find a congenial climate, and a soil adapted to their successful cultivation, and are to be met with at several points in this section of the country.* No attempt, so far as I have been able to learn, has as yet been made to produce the pine-apple, although the climate and all other concomitant conditions of locality essen-

* In a private letter from a friend residing in the City of Los Angeles, the writer says: "The richness of the soil cannot be surpassed, the country is finely watered and possesses every facility for irrigating the land, which is all important in this country. * * * The climate is equal to any in the world. I might say we have almost perpetual summer. There are two seasons—the wet and the dry—but it is always pleasant. Our winter is like the spring of the year; the grass is already [December 12] quite green, and there are many flowers blooming in the gardens. Everything flourishes luxuriantly: many of the tropical plants and fruits grow finely here. As an instance, I will mention one of our own gardens, in which with ordinary culture the following fruits are produced in great abundance: the orange, fig, pomegranate, almond, quince, citron, lemon, plum, peach, apple, pear, cherry, apricot, olive and grape. These fruits all seem to thrive equally well in the same place."

tial to its culture abound. Some experiments have been in the culture of tobacco, which have proved highly successful and satisfactory—the Cuban variety is found to flourish as well here as upon its native soil; the great consumption of this article in California will render its cultivation an object of some considerable importance, and as so little care and labor is necessary in rearing it here, it is more than probable that but a few years will elapse before it will find a place in our commercial tables, as an article of home production, and perhaps of exports.

The climatal conditions of these plains, and the adaptability of their soils are such that we may reasonably expect, ere a few years shall pass, that cotton, coffee, tea, sugar and rice, the four latter articles particularly, will find a place in our catalogues of home productions, and the only impediment that now stands in the way of their immediate production, is the high price of labor which is consequent upon the sparseness of population. The unoccupied or rather unimproved lands extending from Point Aguilla to San Diego on the land of the coast, and into the interior for distances varying from twelve to fifty or sixty miles, and the extensive valley ranges beyond the first and eastern line of ridges of the San Bernardino mountains offer strong inducements to the immigrant and settler who may be seeking a permanent and agreeable home, and who wish to cultivate the soil as a means of livelyhood and source of profit. To such this district of the State furnishes an ample field for his operations, and equally profitable with any other portion of our wide domain.

An artificial supply of water being necessary to develop the agricultural and horticultural resources of this part of California, Dr. Trask seems to have paid special regard to the means by which a supply of this element can be obtained in different parts of the State. Artesian wells, canals and tanks are looked to as affording facilities of irrigaiion calculated to bring a large portion of the fertile valleys and plains into a profitable state of production. Upon this subject he says:

We cannot judge of the value of a district of country by a superficial glance at its exterior features, and nothing but a searching and discriminating view of its hidden resources can give us an adequate idea of either its present worth or its prospective facilities. This remark will apply with great force equally to the Plains of Los Angeles, the valley of the Sacramento and the lands bordering it, as well as to the broad district embraced in the valleys of the San Joaquin and Salinas Rivers, especially when we come to consider their agricultural fitness, or their application to any pastural purposes. It is needless here to dilate upon the importance of a knowledge of the geological structure and mineral affinities which often influence the virtues of soils rendering them more or

less adapted to certain purposes of an agricultural character. Great error might doubtless arise in many instances were we to attempt a judgment of some of the districts alluded to, without such knowledge; for instance, a stranger passing along portions of the Plains of Los Angeles in our long dry summer season would find the beds of streams dry, the herbage and vegetable growths seared, the earth parched and cracked open as it lies baked in the burning heat of the sun, the timber sparce and of gnarled and almost useless description; upon these external appearances he would conclude with great error that he had found a region unfit for the habitation of man, when in truth, such is the sub-structure of these plains that their soils are unsurpassed in fertility by any others in the United States, as the returning seasons of rain would prove to the same traveler, when he should find himself almost buried in the luxuriant growth of the grasses, wild grain and herbs of these districts. And it ought to be observed that vast portions of these lands may be irrigated, so that even in the summer they can be brought within the profitable control of the husbandman.

These portions of the country which are not found to yield the precious metal, or any other useful mineral products to any great extent, can be interesting in an economical point of view only with reference to their means of agricultural occupation. It will be with the purpose of precluding erroneous conclusions from being drawn out of any remarks we may make in this connection, that we propose at this time to consider the geological structure of these sections in the bearing it may have upon the prospective interests alluded to, interests which we think are destined sooner or later to test all the capabilities of these valleys for agricultural and horticultural production.

The first question in importance to be settled on this subject is the one of irrigation; what are the means to be used in order to bring within the reach of the farmer a supply of water sufficient for the thirst of the land and for the necessary wants of stock during the long dry seasons of our climate? Two methods have been proposed to which we will address ourselves at this time. The one is that of *tanks* which may be found amply sufficient for present purposes in supplying the lands now occupied with water enough for the farmer and horticulturist. The other method is by canalling, for the purpose of drawing water from the rivers out upon the plains in sufficient quantities to supply their entire surface with the essential element of cultivation of the soil.

The tanking system has been used for many years in India and the oriental nations, and has proved successful beyond the expectation s of its originators. The positions of the hills forming the northern boundary of the plains of Los Angeles are admirably situated for the accumulation of water by this means, and the expense of constructing the dams necessary for its retention would be comparatively small, when considered in connection with the ad-

vantages to arise from their erection. There are many natural reservoirs skirting the line of these plains, which, if obstructed by small dams, would furnish water sufficient for all ordinary purposes of cultivation. Immediately to the north of the city there is an opportunity afforded for accumulating a body of water nearly one mile in length, with a breadth of one fourth of a mile, and a depth of from 20 to 30 feet, by the construction of a single dam across the entrance of the ravine. This lagoon would be filled and kept supplied for at least six months of the year from the rains which annually fall, and from which several remitting springs in this vicinity are now supplied. This is given as an instance, but only one of many of a similar character which may be found to prove that from the constructions of these hills, nature seems to have designed a plan which would force itself upon the mind of man for meeting the exigencies of our long dry seasons, and in this way inviting him to the enjoyment and possession of her rich fields. It is a practicable and feasible plan which would at once strike the eye of a hydraulist, and which has no place in the theories of visionary speculation.

We have frequently alluded to the extraordinary agricultural developments in California. But a few years since, indeed we may say that but the other day calculations were being made of the cost of transporting breadstuffs and provisions by railroad to supply the California and China markets, and it was supposed that the demand for these commodities in that direction would of itself go far towards supporting a railroad across the continent. But to the utter confusion of all calculations, the current of trade has already turned in this direction, and large quantities of wheat and flour, the products of California soil, are now on their way to our eastern markets.

The following statement, copied from "The Placer Times and Transcript," of 16th May, 1855, shows the nature and extent of this movement.

EXPORTS OF AGRICULTURAL PRODUCTS.

To those of our Eastern friends who have so long been in the habit of thinking that the people of California could not, in any contingency, do without their assistance in the way of large supplies of merchandise of every possible description, it may be interesting to know that, instead of requiring at this moment any great degree of help, particularly in the articles of breadstuffs, and grains for stock food, we have quite enough and to spare; and moreover, that we enjoy the prospect of abundance in the growing crops. It is the general belief among farmers and others who have enjoyed opportunities of observation, that the heavy crops of the past year

will be far exceeded by those of the present; and in this view of the case, and impelled by the long existing low prices of farm products, business men have at length resolved to ship hence, in search of a market, a large portion of the flour, grain, &c., which we have in surplus.

As will be observed by reference to our market report of this issue, no less than *seven* large vessels are now loading or are already loaded with such products, the growth of our soil, destined for New York and Australia—three to the former and four to the latter. In addition to these, others will immediately be laid on, if we may credit report, for the same object. The clipper ship *Charmer*, to sail for New York on Thursday or Friday next, has already on board sixteen hundred tons of freight, of which about two-thirds are of wheat and flour — principally the former. The vessels for Australia are loading rapidly with flour, wheat, barley, oats and potatoes. Truly, this does not look as if any very serious apprehension was entertained by Californians, of impending starvation.

It seems difficult, no doubt, to parties abroad, to realize the vast change that has taken place within a very few years in this respect. *Then* we imported everything but gold. Now, we need import little beyond a few luxuries, and some of these our soil possesses the capacity of producing. Of staple food articles, we need not at present import a pound; but on the other hand, the most serious consideration is, whither shall we *export* our surplus of them? Fortunately for us at this time, a prospect is afforded by scarcity and high rates elsewhere, to embark in a venture such as we have above alluded to. It may turn out well, but promises little for similar enterprises at future periods. Still, there is consolation in the fact that we *can* produce enough to supply our own wants, and thus save within ourselves, the treasure sent abroad for supplies.

In 1853, we imported largely, and much of such imports will never be necessary again. Thus, by developing the capabilities of our State, we have gained something. Of breadstuffs and grains, it is almost incredible to glance over the statistics of imports for the year 1853, and the cost which they required. Below we submit a synopsis of the quantity and value of the articles received at the port of San Francisco, from abroad, during that year.

			Average Value.	Total.
Flour.....	510,577	bbls.	$12 p. bbl.	$6,126,924
Buckwheat Flour....	514,800	lbs.	10c. p. lb.	51,480
Cornmeal.....	13,368,500	lbs.	3c. do.	401,055
Beans.....	8,415,700	lbs.	7c. do.	589,099
Corn.....	5,254,230	lbs.	3½c. do.	183,898
Wheat.....	7,666,400	lbs.	4c. do.	306,656
Barley.....	29,900,000	lbs.	2½c. do.	747,000
Oats	12,210,400	lbs.	2½c. do,	305,260

Potatoes.....	1,478,730	lbs.	3½c. do.	51,755
Onions.....	407,800	lbs.	10c. do.	40,780
Total value.....				$8,803,907

Were we to add to the foregoing list a few other articles, such as Lumber, Hay, &c., we should swell the aggregate value of what we now produce in excess, but formerly imported, to fully $12,000,000—all of which is a clear saving of that amount of gold to the country.

Iron Mountain Region.

The Iron Mountain Region of Missouri is a spot of national importance.

Situated near the center of the Mississippi Valley, about forty miles west of the river at Ste. Genevieve, and eighty miles south of St. Louis, the Iron Mountain, one of the spurs of the Ozark range, rising about 260 feet and embracing 500 acres, is estimated to contain more than 200,000,000 tons of ore above its base; and its base is 628 feet above St. Louis directrix, and 1000 feet above tide water in the Gulf of Mexico.

The Pilot Knob, another spur of the Ozark Mountains, 6 miles further south, rising like a cone 550 feet above its base, 1088 feet above St. Louis directrix, and 1460 feet above tide water of the Gulf of Mexico, embracing also about 500 acres, is capped on its summit by a vast body of solid iron ore, appearing from a distance like an immense black turreted castle.

The Shepherd Mountain, whose summit is nearly 700 feet above its base, adjoining that of the Pilot Knob, abounds with an ore which, as we have heretofore stated,* on the good authority of that skillful iron master Mr. H. T. Bailey, "is peculiarly adapted to the manufacture of steel of all kinds; it is one of the most valuable ores in Missouri, and fully equal to the Denamora ores of Sweden, from which the best English cast-steel is made."

Various other spurs of the Ozark, known as Pratt, Bogy, Christy, Shut-in and Russell mountains, all of which are within six miles of the Pilot Knob; abound with ores, most of which are of the first

* See Western Journal & Civilian, vol. XI, page 370.

quality for making iron direct from the ore in the Catalan fire, the Bogy and Christy ores partaking of the same nature with the Shepherd Mountain ore, being very valuable for steel-iron.

The ores of this region are mainly specular oxide, and yield from sixty to seventy per cent. of pure iron, though large beds of hematite ore are found near the Pilot Knob, which taken with the ore of that mountain produce the best quality of pig iron.

The ore of the Iron Mountain produces tougher iron than that of the Pilot Knob, while the ore of the Pilot Knob, as is contended by some persons, produces finer steel than that of the Iron Mountain, and combinations of the two produce every desirable variety, and each of the most excellent quality.

The Iron Mountain is near the center of a tract of 20,000 arpents, belonging to the American Iron Mountain Co.

The Pilot Knob, and the various other mineral spurs mentioned above and lands amounting altogether to more than 20,000 acres belong to the Madison Iron & Mining Co.

These companies are now engaged developing a small portion of their inexhaustible resources. Three blast furnaces are now in operation at the Iron Mountain, two of which are just in blast. When all three get in full operation, it is estimated that they will make at least 30 tons per day. One of these furnaces now in full operation made 421 tons of pig iron and five tons of casting, being 426 tons during the month of April, and in the next month, May, 1855, made 443 tons, being more than 14 tons per day. This furnace whose production is so extraordinary, and is said to be unsurpassed, if it is equalled by any other furnace of its size and class in the world, is 38½ feet high and 9 feet wide across the bosh. The tons are calculated at 2268 pounds each. The coal consumed in making one ton of iron is 164 bushels, 2500 inches being the standard bushel of coal, while in Ohio, Pennsylvania and Tennessee the standard bushel is 2700 inches. The iron made is mostly No. 2, and is unsurpassed for malleable and car wheel purposes, as also general forge purposes. Mr. James L. Gage, at the Missouri foundry in St. Louis, uses it almost exclusive of other metal for making the car wheels now employed and preferred on the Pacific, on the Ohio & Mississippi and other railroads. The North Missouri, the Alton & Terre Haute, and even the Nashville & Chatanooga Railroad Cos. have ordered Gage's car wheels, made of the Iron Mountain iron. It is also used for the same purposes in

Chicago, Cleveland, Cincinnati, and other important points in the West.

The Company have no forge at the Mountain, but Messrs. PREWITT & PATTERSON are operating one, called Vallé Forge, which is situated 25 miles from Ste. Genevieve, on the plankroad leading to the Mountain. This forge commenced operations in June, 1853, and has 10 fires. Eight of the Catalan fires are making iron direct from the ore at the rate of from 30 to 35 tons of blooms per week. The other two fires, working from the pig made from the Iron Mountain ore, producing what is called the refined or Knobbled Bloom, turns out, together with the eight Catalan fires about 40 tons per week.

Thus it appears that the three furnaces at the Mountain, and the Vallé Forge near Farmington, together, when in full operation, are capable of producing 250 tons per week.

The Madison Iron & Mining Co. have two blast furnaces for making pig metal, and one forge with eight fires—six Catalan fires making iron direct from the ore, and two fires making knobbled bloom at Pilot Knob. One of the furnaces is now being enlarged —built higher—the other is now making 12 tons of iron per day, and is constantly increasing in its daily production. This furnace is 43 feet high, and 12 feet wide across the bosh. It was lately built, and working on hot blast its capacity is estimated at 15 tons per day. Furnace No. 1, which is now being enlarged, also 43 feet high and 10 feet wide across the bosh, and which will be completed about the 1st of July, 1855, and also working on hot blast, is estimated will be capable of turning out an equal amount of iron with Furnace No. 2, making 30 tons per day.

The eight fires of the forge are now making about 35 tons of blooms per week.

On these estimates and evidences of the capacity of the forge and furnaces at the Knob, which data are derived from different and good authorities, it appears that when in full operation they will be capable of producing 245 tons per week, which, added to the weekly productions of the Vallé forge and of the furnaces at the Iron Mountain, make a sum of nearly 500 tons per week, and more than 25,000 tons per year.

Beyond these evidences and prospects of theannual production of iron in the Iron Mountain region, there are large standing orders for several thousand tons of ore to be shipped from this region to

Pittsburg, Wheeling, Cincinnati and Louisville for the purpose of being mingled with the Ohio Valley ores.

The want of teams to cart the ore prevents the demand from being supplied. At times last year there were about 25 teams engaged in hauling ore from the Iron Mountain region to the Mississippi river, the average weight of the loads being about 5000 pounds, but this year teams enough cannot be found in that region to cart the metal. On the 29th of May, 1855, the author of this article passed 20 teams camping at one spot along the Plank road, a few miles west of Ste. Genevieve. The ores are sold on the Landing, at Ste. Genevieve, for $10 per ton, the charges for hauling and shipping being $6 per ton, the average charge for freight to Louisville, Cincinnati, Wheeling and Pittsburg is about $5 per ton. Total average cost of these ores delivered along the Valley of the Ohio $15. Total cost of Ohio Valley ores at same places, $5. Extra price paid for Iron Mountain ores $10 per ton. The same difference is observed in the price of pig iron, the Missouri pig delivered there now costing $36, while the Ohio pig costs only $26 per ton.

When the St. Louis & Iron Mountain Railroad is in operation, the cost and charges on the ore and its transportation from the Iron Mountain region to and along the Valley of the Ohio will be reduced to nearly ⅓ of the present price. The cost of the ore at

the Mountain and Knob will then be about.....	$1,50
Transportation on railroad to St. Louis	2,00
Average freight to and along Ohio river in barges.....	2,50
Total average cost of Missouri ore on the Ohio about	$6,00

per ton. By which it will be seen that the difference in the cost of the Missouri ores and the Ohio Valley ores, will be reduced from $10 to only $1 per ton on the Ohio; and it will be further seen that if 5000 tons are ordered at present prices, the extra price for these 5000 tons now, is just as much as the extra price for 50,000 tons will be when the railroad gets into operation. From these estimates and evidences, one may very reasonably conclude that when the ore can be brought to St. Louis by the railroad, there will be a yearly demand for at least 50,000 tons of Missouri ore to be used in the Ohio Valley.

And further, when the Pacific railroad brings the cannel-coal of Cole county to St. Louis, which event may occur in November,

1855, and the Mountain road brings the iron ore, which may be the next year, and the extra quality of both this coal and this ore is considered, it is but a moderate estimate to assume that a yearly demand will be made for 100,000 tons of this ore to be manufactured between St. Louis and the Mountain. But as it was shown that the works in operation, under improvement and in course of construction in the Iron Mountain region, all to be in operation in July, 1855, are estimated as capable of producing 25,000 tons of iron per year, it follows, if the estimates of the yearly demands for the ores are within just limits, that 175,000 tons of iron and iron ore, will be transported to St. Louis by the Iron Mountain railroad within one year after the road is completed.

Iron, however, although the amount of this mineral may be stated in billions of tons—for, as the Iron Mountain alone having been estimated to contain two hundred and twelve million tons of ore above its base, is now found, on boring one hundred and sixty feet deep for an artesian well, to be there still pure iron ore, and as six other spurs of the Ozark mountains within six miles of the Pilot Knob are masses of iron, each larger than the Iron Mountain itself, and as "Wayne county contains more iron ore than any county in the State," according to the opinion of an intelligent and distinguished gentleman in Washington county, who also stated in July, 1852, in a communication addressed to the author of this article, "the line of railroad you have suggested, would traverse more than one hundred miles of the richest iron deposits on the globe; from the Meramec to the Swamps scarce one section of land can be passed without finding on it deposits of iron ore, and in many localities of astonishing quantities" therefore it is a very reasonable estimate to assume that the amount of this mineral may be stated in billions of tons;—yet, iron, we repeat, is not the only interesting product of the Iron Mountain region; for in company with Professor Swallow, State Geologist of Missouri, and Dr. Litton and Mr. Price, his assistants, we saw, in this region, during the last week of May, 1855, masses of marble, of flesh color and fine texture, jutting out of a mountain, between two and three miles west of Pilot Knob, in points nearly a mile apart, on lands owned by the Mining Co., also on lands of Messrs. Cobb & Cayce, and in places, apparently sixty feet deep, also masses of granite, at one place, on land owned by the A. I. M. Company, about four miles south-west of the Iron Mountain, and about 1500 feet above

the Gulf of Mexico, one solid mass of granite, whose summit was crowned with hundreds of granite boulders, from four to forty feet high and from five to fifty feet in horizontal diameter, some resting on a basis of only two or three feet, and others on a basis of only two or three inches: the smallest one of which above described, we moved with a single finger, and the largest of which completely sheltered us with Prof. SWALLOW and Mr. JOHN G. SCOTT, during a violent thunder storm; and we saw not only mountains of iron, marble and granite, but also mountains of pine; and in the beautiful valley of Arcadia, which, from the top of the Pilot Knob or of the Shepherd Mountain, reminds one of the happy valley of Rasselas, could be seen, while passing through it, almost every species of forest tree that grows in the State of Missouri, the description of which will doubtless fully appear in the Geological Report, while it may be here stated that the wild pear-tree, in bloom, which is said to bear a fruit very small and as delicious as small, the wild plum and wild cherry, the butter-nut, hickory nut and black walnut, the raspberry, the dew, black, whortle and mulberry in bearing, and the grape vine in luxuriant abundance, changing from bloom to fruit, could be also seen, and the grape perceived oftener than seen, by the spicy odor, with which it filled the air, stimulating a friend of sense and sensibility riding at our side to exclaim: "The far-famed 'Gales of Araby the Blest,' are renewed in my imagination, but sweeter yet, though all unknown to fame, is the fragrant breeze of Arcadia."

Kaolin and manganese also abound in the Iron Mountain region, likewise porphyry and sandstone, and at various places around it are immense mines of lead and of copper.

About half way between the Iron Mountain and Pilot Knob, is seen the Middle-brook and highest source of the St. Francis river, and about one mile further south, spring out the highest sources of Stout's creek, a stream which flowing down by the Pilot Knob and through the rich valley of Arcadia, forms a tributary to the St. Francis. Along this stream chalybeate springs are found, though this region is not so remarkable for its mineral waters, as for its mineral mountains.

Near the Pilot Knob, between it and the Iron Mountain, along the side and on north of the mountain, could be seen in various places, excavations and embankments denoting the route of the St.

Louis and Iron Mountain railroad; but the work was only a slight beginning of what should long ago have been done.

Going among the sublime and beautiful scenes of those Ozark ranges, less than 100 miles south, yet more than 1200 feet above St. Louis, and enjoying with senses and sensibilities, the sight of that cone-like mineral mountain, with its "Pilot Knob" of iron ore towering on its lofty summit, surrounded, within fifty miles, by billions of tons of this valuable metal, by delightful valleys winding with their streams, by refreshing fruits and waters, by the blooming buds of earth and the pure airs of heaven, by the harmonious echoes and varied concerts of nature, and feeling the mysterious spirit of the solitude, and pondering on these vast sources of pleasure and resources of profit, on how much God has done for man, and how little man has done for himself in this region, where mines, that should be turning the current of the gold of California, from England to Missouri, concentrating the iron trade of America at St. Louis, and diffusing the blessings of social prosperity throughout the length and breadth of our land, are now producing only the first faint ripples in trade, and thinking too how many travellers would rush to this spot if its picturesque scenes were fairly disclosed to the world—surrounded and charmed by these visions and feelings of grandeur and loveliness—and casting the eye of imagination toward the end of the nineteenth century, a magical change suddenly appeared: the embellishments of fancy and the refinements of art, were blended with the gentleness and boldness of nature, the hills and valleys adorned with herds of sheep and of cattle, with fields of grain and of meadow, with orchards, vineyards and gardens of native and exotic fruits and flowers, with residences of elegant rural architecture, with varied schools and colleges of learning and temples of worship whose steeples point toward heaven, with magnificent hotels for public entertainment, where strangers from the Gulf and from the Lakes, from the Atlantic and from the Pacific, are attracted as well by the charms of nature as by the obligations of business, and meet with a thronging and thriving population of hundreds of thousands, engaged in the civilizing pursuits of agriculture, manufacture, commerce and literature, soothing the asperities of sectional feelings by the harmonious interchange of social relations, binding the union together, by the bonds of trade, and of friendship, as also by the roads they iron, from the center to the extremities; and seeing all these glorious transformations

and results through the clouds of the future, we were profoundly impressed with the truth of our first propostion, that the Iron Mountain Region is a spot of national importance; we wondered how the people between St. Louis and the Mountain, could be so blind to their own interests, as not to see the immense profits accruing to them from a railroad uniting these two points; we were astonished, that the State of Missouri had not acted more promptly and liberally at the commencement of this enterprise; and we were shocked that the Congress of the United States should have crushed the proposition to transfer public lands in aid of its construction, and its extension north and south to carry out the plan of the Missisissippi Valley Railroad from the city of New Orleans to the Falls of St. Anthony.

From the first of the various and elaborate articles we have written on this subject, we have viewed the Iron Mountain road in a national light, national, at a glance, as a link in the vast chain binding the Union together from the Gulf of Mexico to the British Possessions; and on deliberate consideration, national as a short measure to protect, not only the Iron man of America, but also every farmer, mechanic and railroad company that wants iron, against the despotic oppression of European absolutism, which is exacting and draining the money of this country, and keeping us in vassalage, dependent and bowed down under European bars of iron—bound and beat by rods of European iron, beat by their competition, and bound to pay the tyrants for their beating.

The members of the national council in Congress seem more devoted in winning spoils from, than in winning goods for the people. This should be endured no longer. From the length and breadth of the Mississippi valley a voice should arise, like the voice of one man in its unanimity, yet like the din of many hammers and the roar of many waters in its strength, and ring the political-death-knell of all their legislators who allow our national rivers to remain barred, stuck and dammed with rocks, snags and mud, and our national railroads, such as the Pacific and the Mississippi Valley railroad, to struggle, drag along and almost break down in their progress for want of money in the hands of the people to complete these national works; while the coast survey of the Atlantic and the ocean steamers are aided in exhausting us of our domestic, and overflowing us with their foreign commerce, and while too the national treasury has long been also overflowing, and the national lands almost given away to speculators on bounty warrants.

The State of Missouri, however, has acted in a different way towards her citizens in favor of internal improvements — with a more generous spirit and equitable policy—than the United States have towards their people. $9,300,000 of bonds have been offered by this State to be loaned to various of the leading trunk railroads extending diversely towards all her borders, to be paid dollar for dollar after private subscriptions of $50,000 are expended, the State holding a first lien on the roads, to secure the payment of her bonds. With this lien-policy, the present system of railroads, and even additional leading trunk roads, might be built by the citizens of the State, were it not that the Atlantic and foreign policy pursued by the General Government together with its anti-domestic policy, sending ocean steamers loaded with gold to Europe, and locking up millions in the national treasury, has almost exhausted the money of the country.

Each trunk of our railroad system to which State credit has been loaned, is now in the course of construction. The Pacific railroad is ironed for nearly 100 miles, the cars are running on the North Missouri; and the Southwest, the Hannibal and St. Joseph and the Iron Mountain railroads are progressing. Hundreds of thousands of dollars have already been expended, thousands of men are now working, and tens of thousands of tons of iron besides equipments are bought for the roads;* the subscriptions are becoming exhausted, and the State bonds cannot be used until after their equivalent has been expended in cash on the roads; the railroad companies cannot borrow money on second mortgages except at ruinous prices; two courses are left to be pursued; and if either one is successful, trains of prosperity will follow, but if both fail, clouds of adversity will lower.

The first course is to gain additional cash subscriptions; this course ought to be tried, and pursued as far as the means of the citizens and counties along the lines of the roads can be employed. They should follow the example of St. Charles and St. Louis, and levy *equitable shares* in their roads on the tax principle. Along the Iron Mountain road, for instance, Jefferson, Washington, St. Francis, Madison and Wayne should be called upon to do all in their power, and the Swamp counties in Southeast Missouri should contract with the railroad company to reclaim a portion of their

* The Iron Mountain Railroad Co. made a contract in June, 1855, for 9,000 tons of rails.

lands by the embankments of their road and otherwise, and invest the net value of the reclaimed lands in the stock of the road, applying the dividends of the stock to the school fund, thus promoting their varied interests while they are extending the Iron Mountain road towards New Orleans, and co-operating with the enthusiastic spirit now aroused in Memphis and in Arkansas in behalf of this portion of the Mississippi Valley Railroad.

If an energetic movement were made in the pursuit of this policy by all the railroad companies in the State, much more could doubtless be done at driving on their works, but it is also doubtless true, that few, if any persons in the State, who have thoroughly examined this subject, believe that this subscription-policy can be wholly successful, even though large numbers of whole-souled men along the lines of the roads would

'Coin their heart,
And drop their blood for taxes.'

The second course is to change the lien-policy. A full and fair argument of this course would require an elaborate treatise, but the main question to be resolved by that argument, is, whether the State should aid in building her railroads on a policy more even-handed with her citizens, and secure the completion of the roads, as well as the payment of her bonds, or whether she will cling with tenacity to her lien policy, and run the risk of loosing the completion of the roads, and thus, too, impairing the security for the bonds, besides sacrificing the interests of her most enterprising sons ?

But we are digressing, though not far from the Iron Mountain Region; for if the lien-policy were changed, and a more even-handed, mutual policy adopted by the State, the Iron Mountain Region, to return to our subject, would be much more speedily opened to the world by the railroad, which also would then be driven on with a double, energetic rapidity beyond the Mountain, to unite with lines of roads to New Orleans.

The forces at work on the Iron Mountain Road, mainly at the heavier points, along the line from St. Louis to Pilot Knob, numbered 800 last winter, and 1500 on the first of June, and they are constantly increasing. The value of the city, county and State bonds being higher now than last winter, the work is pushed with more vigor. The work done under contract up to June, 1855, amounts to about $400,000. Next November the locomotive is expected to be on the track, when, with the laying of the track,

the road will soon commence business, and extend it by degrees with the progress of the work, which will be continued without interruption until the track is all laid to Pilot Knob. And in the meantime it is hoped that the counties of Southeast Missouri may adopt some plan of co-operation with the railroad company, which with a judicious and liberal policy of the State, will secure the rapid progress of the road to the Arkansas line, forming on its way connections with Cairo and New Madrid, and joining with the roads leading through Little Rock to Texas, and through Memphis to New Orleans, while joined at St. Louis with the North Missouri, and by it with the Mississippi Valley railroad north, and forming connections in Iowa and Minnesota with other railroads already planned and organized there; it will be linked with the Falls of St. Anthony and the head of Lake Superior, thus uniting the Gulf of Mexico with the British Possessions; by which means, and by the roads leading to the Atlantic and toward the Pacific ocean, as also by the rivers and various other ways, the immense wealth of the Iron Mountain Region may be carried to every extremity of the Union, and every extremity of the Union attracted toward the Iron Mountain Region.

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NOTE. — The author of the above would here add, for the information and entertainment of persons wishing to visit the rich, wild and delightful scenes of the Iron Mountain Region now, that leaving the city of St. Louis at about 5 o'clock in the evening of the 23d of May, 1855, on the Packet steamer Thomas Swann, going 60 miles in 4 hours, arriving at the Landing of Ste. Genevieve at 9 o'clock, he found, waiting for the steamer, a very comfortable public conveyance, in which, riding over a level, gravel road, reminding him of the snowy smoothness of the celebrated shell road at New Orleans, he was taken to the hotel of Col. DETCHEMENDY, whose full and jolly figure and free and easy manners, made one feel that a good bed and a good table were here spread for the traveller, as this one found after a sweet sleep and a hearty breakfast; then starting with Gen. ROZIER, riding along and viewing the immense Bottom Field, like the great American Bottom opposite St. Louis in its luxuriance of soil, yet superior to it by the improvement with fence and cultivation with corn, then returning to town and hearing the sound of music, floating down from a large showy building, commanding the highest point on the Bluffs

towards the west, and learning that it came from the Academy of which my companion was Principal, that on every Thursday being holyday it was practised, and going to the building and finding there a large band of youths of various ages, playing on various instruments, from

"The shrill trump,
The spirit-stirring drum, the ear-piercing fife,"

the startling trombone, the mirth-moving fiddle, and the soul-soothing clarionet, and seeing the faces of the youths glowing with both the exercise and the joy of their music, then observing the admirable arrangements of the rooms throughout the Academy, and looking out on the hills and valleys rolling far off toward the West, then on the venerable and smiling town resting on the slope toward the East; and then on the great river flowing on in the distant view beyond, with the sight of the Bluff of Illinois beyond the Kaskaskia river also in view; and though delighted with this spot, passing around where the weeping willow hung over the grave of the "Model Senator," and approaching the monument of Ste. Genevieve marble, erected by the State of Missouri, to the memory of that distinguished statesman, Dr. LEWIS F. LINN—musing on the devotion of heart and firmness of mind which attracted and retained the love of all who knew him, and gathering white and red roses that were blooming around his tomb; then visiting the last of the legal pioneers of Missouri, whose energetic spirit maintains his form active and erect, under the load of nearly four score years, with his snow-white hair, arranged after the style of the olden time, with the ends wound around and fastened to his crown, and attending Court with this fiery-hearted veteran in the law—Hon. JOHN SCOTT, and witnessing the bland and dignified presence of the Judge JOHN H. STONE, hearing for a while the trial of a cause; then preparing for departure, hiring a spirited, strong and gentle pony of MATHEW KERN, who is doing a driving business, ever ready to serve the public; and after taking a venison dinner, starting westward in company with the substantial Lawyer of the Iron Mountain Region—M. FRISSELL, Esq., riding along the Plankroad, with its easy grades, noticing on the way the factory for sawing marble near Ste. Genevieve, handsome fields of barley, wheat and corn, near the marble quarries, tar kilns in the pineries and Vallé Forge on Wolf creek, arriving at Farmington at 7 o'clock, hearing a sermon in the village church, remaining until morning at a neat

inn, where the best kind of coffee was found; meeting with Colonel JOHN COBB, a popular public officer of St. Francis county, parting with the legal friend and going with the Colonel, arriving before noon at the Iron Mountain, stopping at the comfortable hotel kept by Mr. MITCHELL, near whose door a fountain was springing, seeing Mr. JOHN G. SCOTT, the energetic manager of the iron works; and while examining the mountain and the furnaces, receiving his polite attention and the generous hospitality of his house; then going over to the Pilot Knob, arriving there Friday afternoon, putting up at the public house, where another beautiful spring was flowing, meeting with the State Geologist, two of his assistants and various other gentlemen, examining the forge and furnaces, ascending on the pony to the top of Pilot Knob and of Shepherd Mountain, riding through the charming valley of Arcadia, along the meandering trout stream to the Shut-in Mountain, traversing the country in various directions, receiving in the meantime throughout the whole visit to the Knob, a cordial entertainment in the private family of the unpretending manager, Mr. H. T. BAILEY; and then on Monday returning to the Iron Mountain, traversing it, and on Tuesday morning visiting the Granite Mountain; after dinner, parting with the generous mountain men, and at Farmington with the popular Colonel, regretting that a few days could not be spent in that lovely village, brightened by its white houses and shaded by its dark trees; then driving on down the easy grades of the Plankroad, passing vast numbers of teams, and arriving at the "Detchemendy House" of Ste. Genevieve in the evening, spending Wednesday and Thursday there in business and pleasure, viewing again with that courteous and public spirited gentleman, Gen. F. A. ROZIER, the rich fields of barley, wheat and corn around the town, and the large heaps of iron, marble and glass sand at the landing; and hearing again the pleasing sound of music from the band of the Academy: about all of which items, more would gladly here be written, were not this note already extended beyond all ordinary bounds—enjoying the society and the rides over the smooth gravel roads and streets in and around Ste. Genevieve, where dust and mud seem never found, and sociability is everywhere — the PLAINDEALER'S office being a good illustration of the genial town it represents—several steamers, ascending the river, were unheeded, until Thursday evening, then taking a state-room on a Packet and a refreshing sleep, the city of St. Louis was seen again in the morning of the first of June, by the author.

COMMERCIAL DEPARTMENT.

In presenting to the public the following tables I shall not only give the names of articles imported to and exported from the city of Dubuque on the Mississippi River, during the year 1854; but their tonnage and value, and the increase and decrease since last year on all articles coming within my notice, together with such other general and passing remarks as may be of interest to the reader.

STATISTICS of the commercial and business importance of the City of Dubuque, Iowa, for the year ending Dec. 31st, 1854.

IMPORTS BY THE MISSISSIPPI RIVER.

Names of articles imported t. the city of Dububue 1854.	Amount of tonn. 1854.	Amount Value, 1854.	Increase tonn. 1854.	Increase Value, 1854.
Dry Goods	5,226 00	$1,755 936 00	2,676 00	$899,136 00
Groceries	6,052 00	1,152,595 00	4,792 00	588,955 00
Crockery and Glass Ware	384 00	30,000 00	10 13	23,685 70
Boots and Shoes	135 00	85,888 0	68 07	46,848 00
Hats and Caps	1 10	9.900 00	15	3,400 00
Iron, Steel and Nails	3,600 00	529,375 00	1,200 00	226.875 00
Hardware and Cutlery	862 00	130,000 00	172 00	32,500 00
Sheet Iron	135 00	21,600 00	75 00	12,000 00
Tin Plate and Copper	150 00	29.670 00	134 05	25,260 00
Staves	731 00	97.500 00	491 00	59,100 00
Steam Engines and Mac	300 00	92,295 00	10 00	7,295 00
French Burr Mill Stones	10 00	2,060 00	2 00	410 00
Grind Stones	27 00	2.700 00	18 00	1,800 00
Lead Pipe	15 00	3,900 00	7 10	2 340 00
Paints and Oils	160 00	31,400 00	144 00	28.760 00
Drugs and Medicines	92 00	60,000 00	57 00	37,725 00
Dye Woods and Stuffs	4 10	2,104 00	2 05	1.114 00
Books and Stationary	200 00	48,003 00	75 00	18,001 00
Musical Instruments	7 00	9,240 00	4 00	5,280 00
Ropes and Cordage	63 00	25,200 00	25 10	13,200 00
Oakum	8 00	1,600 00	4 05	850 00
Tar	25 00	1,000 00	25 00	1,000 00
Gas, Tar and Felt Roofing	60 00	3,600 00	40 00	3,200 00
Salt	748 00	22,425 00	547 00	16,395 00
Gunny Bags	20 00	2,500 00	15 00	1,875 00
Feathers	10	500 00		
Various Liquors	437 00	80,000 00	237 00	65,000 00
Leather and Saddlery	60 00	37,800 00	17 19	12,600 00
Wagons and Carriages	30 00	23,430 00	10 00	7,810 00
Mahogany and Cab. Furn.	80 00	11.500 00	40 00	6,000 00
Pine Lumber and Shingles	14.972 00	352.948 00	4.472 00	58,948 00
Square Timber	40,580 00	121 740 00	39,080 00	117,052 50
Cord Wood	11,400 00	29 500 00	5,700 00	18,100 00
Green Fruits	146 00	4,219 00	16 00	1,219 00
Emigrants Fixtures	7,320 00	87,120 50	4,880 00	58.080 50
Reapers and Mowers	60 00	18.000 00	60 00	18,000 00
Zinc	10 00	1.050 00	10 00	1,050 00
Pig Iron	150 00	7,500 00	150 00	7,500 00
Stone Coal	250 00	3,500 00	250 00	3.500 00
Cement	116 00	2,755 00	116 00	2.755 00
Grass and Garden Seeds	5 00	1,143 15	1 00	2,228 65
Potatoes and Onions	10	12 00		
Total	97,633 00	$4,933,208 65	65,636 09	$2,436,848 35

COMMERCE OF DUBUQUE, IOWA.—Continued.

The whole amount of tonnage of imports to Dubuque on the Mississippi river, during the year 1853, was 32,007 11-20 tons, and value $2,497,123 30. The tonnage for 1854 is 97,633 tons and value $4,933,208 65-100, making an income of tonnage in favor of 1854 of 65,625 09 tons, and value $2,436,085 35-100.

EXPORTS BY THE MISSISSIPPI RIVER.

Names of Articles Exported from Dubuque 1854.	Amount of Tonn. 1854	Amo't Value 1854.	Increase Ton. 1854.	Increase Value 1854.
Lead	4,385 00	$526,200 00	5 00	$44,400 00
Iron Steel and Nails	1,200 00	192,000 00	700 00	112,000 00
Hardware and Cutlery	120 00	32,000 00	60 00	17,000 00
Stoves and Pipe	30 00	3,600 00	15 00	2,100 00
Engine Castings, &c	196 00	22,240 00	172 00	19,360 00
Plows	12 12	4,320 00	8 08	2,880 00
Waggons and Carriages	60 00	15,220 00	40 00	10,180 00
Glass Sash and Doors	50 00	6,000 00	5 00	600 00
Dry Goods	265 00	300,000 00	65 10	98,000 00
Groceries	780 00	194,000 00	390 00	97,000 00
Various Liquors	125 00	5,000 00	75 00	3,000 00
Pork	138 00	10,000 25		
Bacon	30 00	4,000 00		
Lard	34 00	6,000 00		
Lime	180 00	1,200 00	105 00	750 00
Flour	880 00	48,000 00	318 08	24,600 00
Wheat	540 00	18,000 00	390 00	15,000 00
Oats	385 00	5,555 00	175 00	2,555 00
Corn	100 00	1,000 05	30 00	375 05
Barley	36 00	1,800 00	27 00	1,500 00
Flax Seed	18 10	650 00	17 10	394 00
Dry Hides	58 00	11,200 00	30 00	5,600 00
Furs and Skins	9 00	9,000 00	7 10	7,500 00
Cattle	650 00	52,650 00	510 00	42,120 00
Horses	135 00	31,025 50	90 00	22,025 50
Sheep	4 10	1,687 50	2 05	843 75
Hogs	6 00	400 00	3 00	220 00
Butter, Eggs, &c.	3 00	2,500 00		
Household Furniture	720 00	24,720 00	630 00	21,630 00
Hops	21 00	21,000 00	21 00	21,000 00
Green Fruits	33 00	2,000 00	33 00	2,000 00
Potatoes	480 00	12,800 00	480 00	12,800 00
Stone Caps and Sills	20 00	300 00	20 00	300 00
Bran	5 10	40 00	5 10	40 00
Reaper and Mowers	5 00	1,500 00	5 00	1,500 00
Threshing Machines	20 00	5,000 00	20 00	5,000 00
Fruit Trees	1 00	800 00	1 00	800 00
Total	11,736 02	$1,573,408 30	4,457 01	$595,073 30

The whole number of tons exported from the City of Dubuque on the Mississippi river, for the year 1853 was 7,482 1-20. Value $1,006,710. The tonnage for 1854 is 11,736 2-20 tons. Value $1,573,408 30. Making an increase of tonnage in favor of 1854, of 4,254 1-20 tons. Increase value for 1854 $566,698 05.

The number of men, women and children, crossing the Ferry at Dubuque during this year, 1854, is 38,400, of this number about 9,000 are emigrants to Iowa.

No. of	Waggons crossed is	. . .	4,300
" "	Carriages "	. . .	2,100
" "	Cattle "	. . .	9,518
" "	Sheep "	. . .	2,708
" "	Hogs "	. . .	6,630

This shows a large increase over last year. During that year the following table will show the number crossed. Men, women and children 6,200.

No. of	Waggons crossed	. . .	2,404
" "	Carriages "	. . .	3,010
" "	Horses "	. . .	6,821
" "	Cattle "	. . .	5,506
" "	Sheep "	. . .	300
" "	Hogs "	. . .	520

The foregoing tables show a large increase in imports and exports over last year in almost every article of merchandise and produce. The large number of men, women and children, waggons, carriages, horses and cattle, crossing the Ferry at this point is attributed to the cheapness of land, the richness of soil and the healthful climate. About 9,000 of these persons crossing the Ferry were emigrants to Iowa, with a fair proportion of the waggons, carriages, horses and cattle with them. This year has been a prosperous one for business, to the merchants, mechanics and farmers. Farmers were prospered in Iowa generally with good crops and fair prices. Nothwithstanding the severe drought realized in many of the Eastern and Southern States, and failure of crops, Iowa has escaped. She has been showered with rain and produced a good harvest. Farmers are receiving a rich reward for their labor and toil in Iowa. Business of almost every kind has increased this year from fifty to one hundred per cent., over last year, and still prospects are more flattering for next season, in many points.

The number of steamers arriving at Dubuque this year, from the opening to the close of navigation, is 672, and of departures 670, making 176 arrivals over last year, and 175 departures. The steamer Mary C. arrived at this port on the 16th day of March last from St. Louis, it being the first boat after the ice gave way in the spring. The steamer Navigator arrived here on the 25th day of November from St. Paul, it being the last boat to the close of navigation. She is laying in our harbor at Dubuque for the

opening of the river in the spring. The steamer Hamburgh, U. S. Dredge Boat G. W. Jonas, the Ferry Boats A. L. Gregoire, Utah, Dora and Eagle, have also taken up winter quarters at Dubuque. Several Flats and Barges are snugly closed in our harbor by ice. Nearly all the steamboats running to and from Dubuque during the season have done a prosperous business. The freights on imports alone paid by the citizens of Dubuque, this year, will amount nearly 50 c. per 100 lbs., making in all paid to steamboats $268,000.

The valuation of Dubuque County for taxation for 1854, is as follows, viz:

Town Lots					$1,627,637
Number of Horses in County			3,052,	Value	189,806
"	Cattle	"	13,063,	"	208,931
"	Sheep	"	3,459,	"	3,425
"	Hogs	"	16,835,	"	27,507
Manufactures					64,565
Capital employed in merchandise					358,917
Total valuation of Dubuque County, for taxation					$5,390,230
Total amount of taxes for the year for State, County, School and road purposes, is					40,000
City tax alone about					17,000
Making in all tax paid					$57,000 00

The emigration to Iowa, this year, has been unusually large.—There has been sold of the public domain this year at the Land Office of Dnbuque for cash 1,120,000 acres. Located with Military Warrants 250,000 acres. Total number of acres entered is 1,370,000. The amount of specie exported from the Land Office during the year 1854, to St. Louis, is $3,961,736. The amount paid Government Drafts at the Office $250,000. There has been more specie exported from the Land Office at Dubuque this year, than ten previous years. The city of Dubuque now contains about 10,000 inhabitants. In 1851 the population was 7,000, making an increase of 3,000 in three years, the greater portion of this increase has been within the last eighteen months. The city is now crowded with strangers from various parts of the Globe, looking out a location in Iowa for a home, or for trade and speculation. Prospects indicate a much larger imigration to Iowa next year than this, or any year previous. The citizens are preparing for that imigration. They have erected during the present year in Dubuque:

37 new stores, 107 dwelling-houses, 153 out-houses, 3 churches, 1 schoolhouse, 1 market house, 3 hotels, 2 warehouses, 1 brass foundry, 1 machine shop, 1 plaining and lath mill, 1 sash & door factory, 1 gas house, 6 bakeries, 3 waggon shops, 5 blacksmith shops, 3 cooper shops, 1 auction room, 2 breweries, 1 bath house.

Making in all 333 new buildings erected this year in Dubuque, many of which reflect great credit on the builders and draughtsmen

for the beauty and elegance of their external and internal appearance, arrangement and convenience. Also reflect a great credit and ornament to the city. There is now occupied in the city of Dubuque:

11 churches, 1 female seminary, 1 college, 5 select or common schools, 2 stage offices, 1 telegraph office, 18 land agency offices, 24 law offices, 14 medical offices, 28 dry goods stores, 22 grocery stores, 5 iron and hardware stores, 7 drug and medicine stores, 1 crockery store, 1 liquor store, 1 clothing store, 7 boot and shoe stores, 5 fruits and confectionary stores, 8 stove and tin stores, 1 carpet and furniture store, 3 saddle, harness and leather stores, 3 book and stationary stores, 4 toy and fancy stores, 1 fruit and seed store, 8 hotels, 28 boarding houses, 4 banking houses, 5 ware houses, 3 auction houses, 5 silver ware and jewelry stores, 1 feed store, 10 milinery shops, 1 bookbindery, 4 printing offices, 8 insurance offices, 2 dentical offices, 2 daguerrean offices, 5 furniture shops, 12 boot and shoe shops, 14 tailor shops, 5 barber shops, 4 tobacco and cigar shops, 8 carriage shops, 14 blacksmith shops, 1 gun smith shop, 1 lock smith shop, 1 plow shop, 4 paint shops, 5 tin shops, 2 flouring mills, 3 saw mills, 2 iron foundries, 1 brass foundry, 2 sash factories, 2 plaining mills, 2 lath mills, 5 breweries, 13 beerhouses, 8 drinking saloons, 4 billiard saloons, 3 ball alleys, 2 fancy gardens, 3 livery stables, 4 lumber yards, 1 marble yard, 2 stone yards.

There is in the city of Dubuque about 1520 various mechanics, 38 attorneys, and 23 physicians in all. There are many offices connected with the city, county, State, and United States affairs, which I have not mentioned in the foregoing tables. I merely make mention of the greater portion of public buildings, stores, offices, &c., to give the reader, if a stranger, some general idea of the business done in Dubuque for the year 1854. It is but within a short period of time since Dubuque or such a city as Dubuque has been generally known. Many persons who have resided for many years within twelve or eighteen miles of Dubuque, in the State of Illinois, did not know, or would not acknowledge to strangers that there was such a place as Dubuque, if there was, it was some isolated place beyond the Mississippi, up some deep ravine, between the hills. Within the last two years some of these same persons have ventured to visit Dubuque and are astonished to find so large a town, so handsomely situated on the west bank of the Father of Waters, and so well built. Some have located here, and others, I am informed, are coming.

There is now nine stages leaving Dubuque daily, carrying weekly, tri-weekly and daily mails, performing some 1260 miles mail service from the Distributing Post Office of Dubuque in various directions in Iowa.

Dubuque is the great central half way city between St. Louis and the Falls of St. Anthony, in Minnesota. It is at the terminus of

the great Central railroad, as per grant of land by Congress, also the terminus of the Milwaukee and Mississippi railroad, which is expected to be completed and in running order in eighteen months or two years at farthest. It is the starting point of the proposed Dubnque and Pacific railroad, also of the Dubuque, St. Paul and Lake Superior road. It is but just found out by many that Dubuque City in Iowa is a great central point, and that the great thoroughfare east and west, north and south, must and will pass through this young and prosperous city. The Central railroad no doubt will be completed and inn running order in March or April next, which will make a continuous line of railroad from Dunlieth, opposite Dubuque, to Boston and New York. The greater portion of Dry Goods sold in Dubuque came from the east, on this line of road to Chicago, then by way of Rockford, Warren and Scales Mound to Dubuque, crossing the Ferry at this point. Many goods in the early part of the season were transported from Chicago on the Rock Island railroad to Rock Island, then shipped on a steamer to Dubuque, costing from three to four dollars per 100 lbs. from N. Y. and Boston, the average freight and charges paid during the year by this route, is about three dollars per 100 lbs. When the northern road is completed, freights will be much less. Large amounts of money have been paid to lumbermen and railroads for freighting goods and floating lumber to Dubuque this season, the precise amount, however, is not ascertained, but probably will amount to upwards of $100,000. The high freight on the Mississippi is owing to the low stage of water and high price paid for wood and hands. The mining interest at Dubuque is increasing. Several new discoveries of ore have been made during the year, and the price paid has ruled high, say from 30 to 40 dollars per thousand lbs., according to quality.

The wheat crop in Iowa is much larger than last year, but the berry in general not so large and plump, the price during the fall ruled at 75 to 80 cents per bushel for spring, and $1 for winter. Other grain came in fine.

The potatoe crop exceedingly fine, and price ranged from 50 to 80 cents per bushel in the months of October and November, for shipping purposes. Retailers are now asking $1 per bushel.

The hog crop is much increased since last year in the northern portion of Iowa. The market for fat hogs opened at this point in November, at $4,00 to $4,50 per 100 lbs., in a small way from butchers. Since that time the price has been on a decline; the market now stands $3,00 to $3,25 per 100 lbs., for heavy hogs delivered dressed. The hogs are well fattened and average about 250 lbs. each. During this month (December) pork has come in freely, but there being but few buyers the price is low. Farmers have ceased in a great degree bringing in their pork, and are packing it at home for the spring market. Beef in good demand, and high prices paid for home demand.

Butter, cheese and eggs in good demand for home consumption at high figures. Wood is selling at $5,00 per cord delivered, for house use, seasoned. I will here remark that the low price paid for pork in this market, also for wheat, is owing to the great bank panic east. Western farmers have lost all confidence in banks, and consider paper currency almost worthless, and will not take it for their produce. Nothing but gold and silver will purchase it, and specie bringing from two to ten per cent. premium in the west in exchange for bank paper, buyers cannot afford to pay the exchange for produce operations, therefore the price of these two articles rule lower than they otherwise would. Business in Dubuque of all kinds is prosperously going on, although money matters are a little tight. But there has been no bank failures in the State, no failure of merchants and trading men in the city. Business appears to be done on a good sound basis, and the business men are fully determined to sustain themselves and business in Dubuque, and I have not the least doubt they will. The prosperity of the citizens of Dubuque and the western people generally this year has been great. Scarcely any investments made either in personal or real property but what has paid well for the enterprise.

With these few remarks I subscribe myself your most obedient servant.

G. R. WEST.

Dubuque, Dec. 31, 1854.

Mississippi Valley Railroad North.

The charter of the Mississippi Valley Railroad North, granted by the State of Missouri, designates the City of St. Charles as the southern terminus, and a point on the Desmoines river, within the State of Missouri, as the northern terminus, leaving the location of the route at every intermediate point entirely to the discretion of the Board of Directors. This fact gives sufficient certainty to the line, and great freedom to the company; it arouses a generous rivalry along the route, which will likely secure the free right of way from almost one end to the other, the largest amount of stock, and the best and cheapest location.

The shortest air line distance from the City of St. Charles to the river Desmoines is 120 miles, and the longest air line distance about 140 miles, the Desmoines river running from 20 to 25 miles along the northeastern boundary of Missouri; but, as the Missis-

sippi river intervening prevents an air line, it may be estimated that the shortest practicable route of this road will be about 144 miles; and assuming that $28,000 per mile, which, from the character of the country along this line, and along the lines of the other roads surveyed in North Missouri, is considered a liberal and reasonable estimate, will build and furnish this road, it is found that $4,000,000 must be raised to complete the road in running order.

How are these $4,000,000 to be raised? The first place to look for means to build a road is in the country along its line, among the people whose lands are doubled in value, whose profit and pleasure in travelling is doubled, whose purchases cost less, and whose sales bring more.

The counties through which this road will pass are St. Charles, Lincoln, Pike, Ralls, Marion, Lewis and Clark.

The population of these counties in 1852, and their State revenue in 1852 and 1854 was as follows:

Counties.	Population.	State Rev. in 1852.	State Rev. in 1854.
St. Charles,	12,492	$3,368 66	$4,185 13
Lincoln,	10,461	3,017 98	3,339 72
Pike,	13,277	6,028 91	7,498 47
Ralls,	6,006	3,972 00	4,441 01
Marion,	12,000	say 5,750 00*	9,850 47
Lewis,	6,586	2,859 11	4,544 32
Clark,	5,572	2,126 28	3,280 06
Total	66,394	27,122 94	37,139 18

From which data it is manifest that, if the inhabitants have increased in proportion with the revenue, the amount of population in these seven counties in 1855 exceeds 100,000.

And it is further manifest that if the counties above St. Charles should follow the example set by her in the case of the North Missouri Railroad, when her people voted $100,000 subscription, and imitated by the people of St. Louis, when they voted for $1,200,000 in the case of the Pacific Railroad, both subscriptions to be taken *in equitable shares*, by each and every property holder, in proportion to his means, on the tax principle, and if the 7 counties should subscribe on an average $150,000 each, more than $1,000,000 would thus be raised, and on the basis of *equitable shares* the average would be only ($10.00) ten dollars for each inhabitant of these 7 counties. Surely this policy could be resolved upon this summer, and the ($10.00) ten dollars a piece could be paid in less than 3 years.

The second place to look for means to build such a leading trunk railroad as this is, is to the State, and though the credit of the

* Not reported.

State should be used only in equal proportion and after the cash of the people is paid, yet if the roads are sure of completion, and are main leading trunk roads, the State can well afford to enter on an even-handed mutual policy with its people, and pay one half of the cost.

But this road is estimated to cost $4,000,000, and therefore the State credit may be reasonably anticipated for $2,000,000, which is the amount proposed to be loaned to this road by the bill now pending before the Legislature.

Yet a balance of $1,000,000 remains to be raised before the road can be completed and before the second million loaned by the State can be used. How is this balance to be supplied? St. Louis citizens, city and county will do all that may become them; but after taking over $1,400,000 of stock already in the North Missouri Railroad, and more than $5,500,000 in the railroads west of the river, and more than $2,000,000 in the railroads of Illinois, making over $7,500,000 in railroad stock; it would seem unbecoming and might be detrimental to the honor of St. Louis, to attempt to raise now even one half of this balance. Many public spirited citizens in St. Louis will doubtless subscribe liberally to the stock of the Mississippi Valley Railroad North, but the larger portion of this balance of $1,000,000 must necessarily be raised by other means than by subscription, for the people of Iowa will need all their own means to build their own roads; fortunate for this road that the people of Keokuk and Eastern Iowa are now struggling to extend it north towards Minnesota, besides building a branch to it along the Desmoines river, and that the people of St. Louis will be connected with it, at St. Charles, by the North Missouri Railroad in operation to that point, early in July, 1855, and that they will commence laying the track in extension of it south towards the Iron Mountain next November, and hope to continue extending the work until the connection is established with New Orleans.

How then, we again ask, is the larger portion of this balance of $1,000,000 to be raised? It is manifest, that the bonds of the company must be used; but the bonds of the company could not be used on second lien, though on the first lien they would doubtless command a fair price. Let the people along the line of this road therefore beware, if they have its speedy prosperity at heart, and guard it against being entangled, like the other railroad measures of the State, by the lien-policy of the State loans. By losing this

point, the balance may be lost: by saving this point, the speedy completion of their road is secured.

Will the road pay when completed? may be answered emphatically in the affirmative, by the evidence of the Hudson River Railroad, and the analogous character of the Miss. Valley R. R. North. The only difficulty is in raising the spirit among the people and the means to do the work.

One of the first ways to raise the spirit and the means to build the road, is by conventions of men interested in the work.

On the 13th and 14th days of June, 1855, we attended a Convention of the friends of this road at Hannibal, in Marion Co., and met with 180 other delegates, mainly from the counties along the line, although Keokuk and St. Louis were well represented by a respectable number of delegates, and Shelby Co. by one.

On motion of Capt Wm. Carson, of Marion, Hon. Wm. Newland, of Ralls, was appointed Chairman *pro tem.*, and J. H. Britton, Esq., of Lincoln, Sec. *pro tem.* A committee being appointed, to nominate permanent officers, reported the following, which were unanimously elected:

President—Hon. John How, of St. Louis. *Vice-Presidents*—Hon. R. P. Lowe, Keokuk; J. R. Barret, St. Louis; S. Keathly, St. Charles; James Reid, Lincoln; Edwin Draper, Pike; C. Carstarphen, Ralls; Hon. A. W. Lamb, Marion; J. McAfee, Shelby; A. C. Waltman, Lewis. *Secretary*—James H. Britton, of Lincoln. *Assistant-Secretaries*—Kirk Anderson and W. W. Howe, of St. Louis; S. R. Raymond, of Lewis; Edward McCabe, of Marion.

The Committee on business were: James O. Brodhead, Wm. Newland, R. F. Lakenan, Col. D. Bailey, H. M. Woodyard, R. N. Renick, R. H. Parks, J. K. Hornish, Wm. Carson, G. D. Merriwether, and G. B. Allen. The speakers were: Hon. John How, Hon. G. Porter, J. R. Barrett, R. S. Elliott, Gen. V. P. Van Antwerp, J. K. Hornish, Col. R. F. Richmond, John McAfee, James O. Brodhead, and Hon. Wm. Newland; and the following resolutions as reported by the Committee were finally adopted by the Convention:

1st. *Resolved*, That the construction of the Mississippi Valley Railroad North, passing thro' the fertile and populous counties of St. Charles, Lincoln, Pike, Ralls, Marion, Lewis and Clark, and terminating at some point on the Desmoines river, near the city of

Keokuk, is demanded by the commercial and agricultural wants of the people of Northeast Missouri.

2d. *Resolved*, That the whole interest of the State, and particularly those of our great commercial emporium, the city of St. Louis, in whose advancing prosperity every citizen of the State ought to feel a just pride, are deeply involved in the speedy construction of this work, because it will bring to the commercial marts of our State at all seasons, the trade of the fertile valley of the Desmoines and of all Southern Iowa, and secure to our own market the rich productions of Northern and North-eastern Missouri, which otherwise will soon be partially directed into the channels of eastern commerce across the roads now in process of construction by the enterprising citizens of the State of Illinois.

3d. *Resolved*, That this will furnish a link in the iron chain of commerce, which at no distant day is destined to bind in one harmonious brotherhood socially and politically, the northern, middle and southern portions of the great valley of the Mississippi, and that interest and duty alike demand that the people of Missouri should put forth their energies to the accomplishment of the work.

4th. *Resolved*, That in view of its importance, the State of Missouri should give such aid to the construction of the proposed road, as she has given to similar works of internal improvement as have been heretofore projected, and that a committee of five be appointed by this Convention, to memorialize the Legislature upon the subject of the loan of the State credit for that object.

5th. *Resolved*, That a committee consisting of three members of the Convention, be appointed to prepare an address to the people of the counties along the route of the proposed road, containing such statistical information as may be deemed useful or interesting, and suggesting such plans as may be considered most advisable for obtaining subscription of stock sufficient for the completion of the road.

6th. *Resolved*, That our sister State of Iowa, allied to Missouri by her geographical position, is deeply interested in being bound to us by the ties of commercial interest, and that her citizens be therefore invited to co-operate with us in the construction of this road.

The committees appointed by the President under the resolutions were: To prepare the address to the people: Messrs. T. L. Anderson, W. A. Harris and J. H. Britton;

To memorialize the Legislature: Messrs. Brodhead, Cunningham, Woodyard, Lakenan and Ralls.

A resolution, offered and advocated by Col. Richmond, maintaining the lien policy of the State, was laid on the table.

And after resolutions of thanks to the President of the Convention and to the citizens of Hannibal, and also a resolution request-

ing the papers throughout the State, to publish the proceedings, were passed, the Convention adjourned.

The next step is in the organization of the Board of Directors, which step, as we are advised, has also been taken.

Immediately following the General Convention, and the organization of the Board, and while the address to the people and memorial to the Legislature are undergoing preparation, grants of right of way and subscription for stock of the road should be gained from individuals; county, town and village meetings should be held, advocating that *equity shares* be taken by every man in the counties along the line, in proportion to his means, based on the tax principle; that the State should, instead of the lien policy, adopt a mutual policy of aid: allowing the company to borrow $1,000,000 on the $1,000,000 they can raise by subscription, which, with the $2,000,000 State aid, will enable themselves to see their way clear to the end from the very beginning of their enterprise, and save themselves from being left hereafter in the lurch, like the man who began to build and was not able to finish; because he had not first counted the cost and made proper arrangements for funds.

By striking while the iron is hot, by using their spirit while it is aroused, by gaining their means while their feelings are generous, by adopting while they are in earnest a policy for raising funds hereafter, which will be wise and sure of success, the friends of this measure will save themselves from much of future trouble, and will doubtless surpass the other railroads of the State, in the ease and rapidity with which they will build the Mississippi Valley Railroad North.

North Missouri Rail Road.—June 27th, 1855, we rode out to the tenth mile of this line on the 1st engine, St. Louis, having seen the 2d engine, St. Charles, placed on the tracks same day. Contractors hope to run the cars from St. Louis to St. Charles on the 4th of July, 1855.

Ohio and Mississippi Rail Road.—*Last rail laid! First train through! Celebration!*—"A telegram dated 'Olney, Ill., June 30th, 1855,' states: "Last rail of Ohio and Mississippi R. R. laid down at 8¼ o'clock this morning; D. R. Garrison;" and in the evening the following was received: "Vincennes, June 30. It gives me pleasure to inform you that the first train over the Ohio & Mississippi R. R., arrived here at 3 o'clock to-day, in nine hours from St. Louis, stopping two hours by the way, and that there is now a continous line from St. Louis to the East * * * J. H. Alexander." A celebration of the opening will take place, at the arrival of a special train from St. Louis to Vincennes, on the 4th July, 1855.

☞Note to the Reader.—At page 81, line 7, please read *that here*, instead of "here that." The misprint to which this refers is to be found in only a portion of this emission.—Sen. Ed.

THE

WESTERN JOURNAL

and Civilian.

VOL. XIV. August, 1855. 3.

ARTICLE I.

St. Louis and the Southern Trade.

We have so often discussed the advantages to be derived from establishing a well-defined system of commerce embracing the Southern and Western States, that we should not advert to the subject at present, but for the reason that certain events now in process of development seem to claim immediate consideration.

Without reiterating views and arguments published from time to time in the Western Journal and Civilian, we shall at once assume that a great commercial city must arise in the Valley of the Mississippi, which will constitute the center of a commercial system, embracing the entire region between the Alleghany and the Rocky Mountains, and extending north and south from the Gulf of Mexico to the British Possessions. This seat of commerce must be on the bank of the Mississippi river, and we are persuaded that every well-informed, unprejudiced mind will admit that St. Louis is destined to be its point of location. In making this declaration, we desire to remark for the benefit of those who are not constant readers of the Western Journal and Civilian, that we have not been nor are we now the advocates of building up great cities for the special benefit of those who may happen to reside in them. Cities are the nurseries of many degrading and dangerous vices, but they are necessary to the present state of civilization; and therefore we advocate their growth as a means of developing the resources of the country at large, and of promoting the prosperity of its inhabitants. We admit that we rejoice in the growth of St. Louis, but it is chiefly because its advancement is calculated to counteract the commercial influence of the eastern cities, to establish a system of internal commerce and finance, which shall control foreign trade,

and give strength and permanency to the social and political institutions not only of the Western and Southern States, but of the whole Union. Hence, whenever we refer to the present interests or future greatness of St. Louis, we beg that our readers will regard us as treating a national rather than a local subject.

In one, and that the most important view, St. Louis possesses but very little southern trade. It is true, she ships large quantities of western produce to New Orleans, whence it is either forwarded to more distant markets, or distributed to southern consumers; but in either case it brings no trade to this point: it only passes here in *transitu* to other markets, where it constitutes the basis of commercial operations between dealers and consumers. Now it is obvious, that if all the produce thus shipped could be sold and distributed directly to the consumers, or to the smaller towns in the interior, the trade of St. Louis would be greatly enlarged, perhaps doubled by the operation. We possess, in first hands, most of the staples required for the use and consumption of the southern planter; why, then, should he be taxed with storage, commissions and profits to dealers at New Orleans? We know there is a convenience in purchasing these commodities at the place where he sells his own produce, but he would experience little inconvenience in purchasing here, and paying in bills on his factor at New Orleans; or, if he deals with a country merchant, it would doubtless be to the advantage of the latter, to purchase here, instead of buying from second hands. It may, however, sometimes occur, that owing to an overstocked market and other causes, articles of western produce may be obtained as cheap at New Orleans as at St. Louis, but these are exceptions to the rule, that the price of all commodities must be lowest in the hands of the producer. Were it otherwise, the carrier, the warehouse man and the dealer would all loose their labor and in time their capital also.

We are aware that the want of facilities of transportation makes it difficult to establish commercial intercourse between St. Louis and the interior towns of the Southern States; but this has not prevented the cities on the Ohio from opening and carrying on an extensive business in that direction.

St. Louis is more convenient to all the States west of Georgia than Cincinnati; and nearer and more accessable by water to the Cumberland and all the tributaries which flow into the Mississippi below that stream than Louisville. But Cincinnati and Louisville

being older commercial cities than St. Louis, took the start of her in the southern trade, and still enjoy it without any serious competition. Perhaps it was wise on the part of St. Louis, that she did not enter into competition for this trade at an early day, but we are persuaded that the time has come, when she can no longer yield it to others without compromising her claims to that exalted destiny indicated by nature and by the opinions of enlightened men throughout the country. She must become the emporium of the south as well as of the north and the west, before she can claim rank with the great producing and commercial cities of other countries. It depends, in a good degree, upon her own citizens now living and acting in their respective spheres, whether she will attain that pre-eminence among the cities of the United States, which is generally admitted to be within her power.

The several systems of public improvement already projected in the Western States, are, with some slight exceptions, as favorable to the prosperity of St. Louis as her citizens could desire; but it will be some years before she can fully realize the benefits which they are calculated to impart. In the meantime, her merchants and manufacturers should be vigilant and active in extending their business relations into districts which have heretofore received their supplies from other markets.

The opening of a communication by Railroad between this point and the fertile valley of the Wabash, is an event which should be improved without delay. That valley, throughout its whole extent, lies at about an equal distance from St. Louis and Cincinnati, and is therefore to be regarded as debateable ground. The former has not only the advantage of being nearer to New Orleans than the latter, but possesses better navigation throughout the year, and, consequently, can supply the Wabash valley with sugar and other southern products upon better terms. Therefore, the enterprise and business qualifications of the citizens of these respective points being equal, St. Louis must prevail in securing the larger portion of the trade of that region. Here, then, is an extensive and rich field opened for the enterprise and skill of our merchants and manufacturers; and possessing the vantage ground, it would be disreputable to them as business men, should they fail to draw the trade of the Wabash valley to this point. Should St. Louis succeed in the contest for this trade, it will be, in a commercial point of view, the most interesting event that has ever occurred in the valley of

the Mississippi. It will be the first check to the current of commerce in an eastern direction, and give more strength to St. Louis than the acquisition of double the amount of trade obtained from the west. To the manufacturer, it will present St. Louis in a new light, and be the means of attracting an amount of capital and skill which will in a few years place St. Louis in the front rank of producing cities west of the Alleghanies. These are not random remarks made without consideration and thrown out for effect; the consequences which we predict, are justly infered from the laws of industry and commerce. Manufactures cluster around the great centers of commerce by the force of laws, not less certain in their operations than those which govern the revolutions of the planets. Heretofore the Western States have been embraced in a commercial system, whose seat is on the Atlantic coast, and manufactures have grown up at and around the center of that system, because the facilities of obtaining all the means of producing as well as of distributing their commodities, were greater there than at points remote from it. So, likewise, when a distinct system of commerce shall be established in the west, manufacturing capital and skill will flow to its center with unerring certainty.

To the working of the raw material of the central region will be added the great staple of the south, and St. Louis will become the best customer of the southern planter, because she will be able to supply him with the leading articles required to carry on his operations upon better terms than can any city east of her.

In view of these events, it behooves the merchants and manufacturers of St. Louis to make themselves and their business known to the people of the Southern States, and avail themselves of every facility which may be opened to extend their business throughout the interior of that region.

Many important improvements are now in course of construction, and others contemplated by the people of the south; and could they be made to appreciate the advantages to be derived from a trade with the Northwestern States, it is reasonable to conclude that many of these improvements would be projected with a view to a connection with the western systems of railroads at St. Louis. Indeed, improvements have already been made in the south which should not be overlooked by western dealers. The first among these is the *Jefferson and Lake Pontchartrain Railway*, uniting the Mississippi above New Orleans with the lake, and sav-

ing much of the expense of transporting produce and other commodities from the Mississippi to Mobile, the great distributing point for the State of Alabama.

Since the opening of this line, we see no good reason why a direct trade should not be opened between St. Louis and Mobile, and even with Montgomery and other towns on the Alabama and Tombigbee rivers. It is probable that within another year the Mobile and Ohio railroad may be completed. This will afford access to a valuable trade in Southwest Kentucky, West Tennessee, East Mississippi and Southwest Alabama, embracing the valley of the Tombigbee, one of the most productive cotton districts of the Southern States. Here is another commercial field worth contending for, and no time should be lost by the merchants and manufacturers of St. Louis in preparing for the contest.

The time is propitious for making a favorable impression on the southern mind. The unwarrantable interference of northern fanatics with the institution of slavery, has prepared the southern people to take a favorable view of the St. Louis trade, and the citizens of this city would not deserve their patronage, were they to fold their arms and coldly wait for them to make the first advance. It is the true policy of St. Louis to take the initiatory step. Her merchants should visit the Southern States, and exchange views with southern men, make known their resources, and advertise in southern papers. A knowledge of the extent and variety of this market is all that can be necessary to bring orders here for many commodities that are now obtained at Cincinnati and other places on the Ohio. The pioneers in this trade may not find it very profitable in the beginning; but if managed with good judgement, it will not be long before they will begin to reap a rich harvest as the reward of their labor and enterprise. Besides, they will be public benefactors to both the south and the west, and enjoy the pleasing reflection of having promoted the general prosperity of the country while laying the foundation of their own fortunes.

The benefits of such an intercourse would be felt long before the avenues of trade are fully opened. For were it generally known and believed that the trade of the Southwestern States would go to St. Louis in preference to the cities on the Ohio river, it would greatly encourage the building of manufactories at this point, to meet the southern demand. In some branches of manufactures at St. Louis, the capacity of producing is believed to be equal to the

demand within her present range of commerce. This, according to our understanding, is the fact in respect to refined sugar, flour, lead in its various commercial forms, and perhaps some other commodities of less value. It would be an easy matter to enlarge the production of these commodities as the demand increases.

Iron, as we believe, is destined to be the leading staple of St. Louis industry. Its manufacture into almost every useful form, is being established upon a large scale; but immense capital is still required to be invested in this business to fill the present demand. Indeed, were St. Louis able to supply the demand of this year, the increasing population of the west, and the new objects for which iron is continually wanted, would increase the demand of next year perhaps twenty per cent. When we take into view the geographical relations of St.Louis, the system of navigation at whose center she is located, the extensive systems of railways connecting at this point, and the inexhaustible stores of metal and coal which lie within a convenient distance of her mills, foundries and work shops, we are compelled to conclude that she is destined to become the most extensive iron market in this or any other country. Indeed, this branch of industry alone with the trade connected with it, would make her a mighty city.

The manufacture of hemp into commodities suitable to southern use, is also being established upon a liberal scale; and as hemp-growing in this country is and will probably continue to be confined chiefly to slave labor, Missouri must furnish a very large proportion of the bagging and cordage required for baling the cotton produced in the Southern States.

Without further enumeration of our staples, it will be perceived by our southern friends that St. Louis is already in a condition to supply them, at least in part, with that class of commodities produced by American industry which is most essential to their wants.

To unite the Western States from the Gulf of Mexico to the northern boundary of the Union by bonds of sympathy, and cement them together by a common interest; to stay the progress westward of the ancient prejudices, which have so much divided the north from the south, and establish a cordial fraternal sentiment throughout the breadth of the land, has long been and is still the most cherished object of our life, and we are persuaded that commerce and the intercourse and relations which flow from it, are the most

efficient, if not the only means by which these ends can be obtained.

While entertaining and acting upon this opinion, we do not forget that there are other and more excellent principles which should unite mankind in a common brotherhood; but we are persuaded that we have not attained to a state of civilization which admits of the influence of those principles to an extent that will bind the union of the States permanently together without the aid of commerce.

Hence wh looking to the conservation and improvement of human institutions, the philanthropist and statesman must adopt the best means in their power for the attainment of their objects, and trust to a wise providence and the labors of those who may succeed them to establish the moral and social condition of the human family upon a better foundation.

St. Louis can do but little more to connect herself with the south by means of public improvements, when the works already undertaken and contemplated shall have been completed. And even these are less essential, so far as respects the southern trade east of the Mississippi, than personal intercourse and well directed individual enterprise. A small amount of money and time spent in this way, would be far more profitable than much larger investments in railroads. A short sojourn in the Southern States by a few intelligent merchants from St. Louis would awaken a spirit of inquiry which could scarcely fail to lead to results highly beneficial to all parties. This is a branch of the subject which we beg to commend to the consideration of the St. Louis Board of Trade, with the suggestion that a few thousand dollars could not be better employed than in making known the nature and extent of the commerce of this city.

In the meantime, we propose to contribute our mite in statistics and facts relating to manufactures and commerce, collected from the most authentic sources at our own charge.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 92, Vol. XIV, No. 2.

French intrigues to confine the West; Clark's expedition against the Wabash Indians, in 1786; First failure of that officer; Change in Clark's character; His wrongs; Honors of Virginia to Clark; Person of Clark; Daniel Boone; His true character; Col. John O'Fallon, nephew of Gen. Clark.

This is not the place to expatiate upon the honorable termination to the labors and sacrifices of the patriots and sages of the Revolution; but the incidental operation of peace on our domestic hostilities, most strictly appertains to the history of the West. The Indians, alarmed at the approaching loss of their powerful British allies, who had fed and clothed and armed them against their most hated enemy, suspended their incursions on the white settlements for a brief period. During this rare interval of armistice between the two races in the Valley of the Ohio, it may be interesting to notice again the attempts which had been made in the negociations for peace, to *sever* the whole Valley of the Ohio from the rest of the confederacy—indeed to limit the new republic by the Alleghany mountains on the West. The first step in this insidious intrigue was taken by Count Lucern, the French envoy, at Philadelphia, in conformity with instructions from the Count De Vergennes, the French minister of State. On the arrival of the former gentleman at the seat of the American government, he lost no time in pressing on Congress certain instructions to be given their ministers at Paris, pursuant to the following ideas: 1. "That the United States extend to the westward no further than settlements were permitted by the British proclamation of 1763;" 2. "That the United States do not consider themselves as having any right to navigate the Mississippi, no territory belonging to them being situated thereon." 3. "That the settlements east of the Mississippi (embracing Kentucky with her southern neighbors) which were prohibited as above, are possessions of the crown of Great Britain, and proper objects against which the arms of Spain may be employed for the purpose of making a permanent conquest for the Spanish crown."*

Indian depredations and apprehension for the navigation of the Mississippi now engaged the public mind. In regard to the first, Indian incursions began again, after a short interval. From 1783

* Pilkin, 2, 92.

to 1790, a little later than the time of this portion of the history of the Valley, "fifteen hundred persons, including women and children, had been killed or taken prisoners by the enemy south of the Ohio; besides taking two thousand horses, and property to the amount of fifty thousand dollars."*

To punish the irruptions of the Indians, an expedition into the Indian country, particularly on the Wabash, was determined on, under the old and favorite leader of the West, Gen. George Rogers Clark. About a thousand men assembled at Louisville, in the course of September, 1786.† The provisions were sent up the Wabash in keelboats to ascend that river, as high as Vincennes, (the old St. Vincents of earlier times.) The expedition proceeded by land to this place, and lay for nine days awaiting the arrival of their transports. These had been delayed by low water in the Wabash, until by imperfect curing and the heat of the weather, one half of the stores was spoiled, and that which the men had taken with them was exhausted, except a few bullocks. This delay proved fatal to the expedition; with irregular troops, delay is equivalent to defeat. A spirit of discontent soon manifested itself in camp, even before the arrival of the boats, and before the state of the supplies was known; afterwards it showed itself more openly. The absence of Col. Logan with his veteran followers, may have contributed to this disgrace; he might have helped his old commander to keep the troops in subordination. The men were necessarily placed on short allowance; but this had not been uncommon with the pioneers, and they marched towards the Indian towns, which were situated about the mouth of Vermilion river.‡ Previous restlessness soon became positive disaffection, "fomented by some officers of rank who were displeased with the General.§" This state of things eventuated in three hundred men deserting in a body, when it was believed there were but two days march from the Indian towns on the Vermilion river, near its mouth in the Wabash.¶ In vain the gallant veteran, who had never yet led his countrymen to defeat, addressed the mutineers "in the most soothing and

* Judge Innes, in Political Transactions, an interesting pamphlet, by the late William Littell, a lawyer of great learning, in Kentucky, published at Frankfort, Ky., by Wm. Hunter, in 1806 or 1807.

† The correction of this date by the Rev. Mr. Perkins is cheerfully admitted. Annals, 279, 1st edit.

‡ Ouiatanon, ar Wea, a little below the town of La Fayette on the Wabash.

§ Marshall, I, 249.

¶ Dillon, 202–3.

earnest terms of entreaty to stay and accomplish the object of the expedition, by a conquest both certain and easy."* The evil spirit of discontent possessed the troops; and they obstinately returned home without seeing an enemy or striking a blow. Still there was a residue left, greater, enormously greater than the whole Illinois regiment, and many other gallant bands, that had, in earlier times, penetrated into the very heart of the country, spreading dismay and destruction before them. But there was something wanting in this expedition, more essential than numbers: without which the largest numbers only increase the spoil of an enemy; it was a manly and patriotic subordination to orders, and an honorable confidence in their commander. Never had Gen. Clark led so unfortunate a party; hitherto victory seemed to hang on his banner with delight, and for him to appear, was to conquer.

At the same time, mournful as the truth is, and reluctantly as the confession is wrung from the author, Gen. Clark "was not the man he had been;"† he was no longer the same man, who had conquered Kaskaskia and captured Vincennes. His mind was wounded by the neglect of Virginia to settle his accounts for the great expedition, which had stretched the republic to the Mississippi. Private suits had been brought against him for public supplies, which ultimately swept away his private fortune; and with this injustice, the spirits of the hero fell; he never recovered these energies which had stamped him in the noblest mould of a commander. A too ready and extensive conviviality engendered by military and social habits completed the ruin, which ingratitude had begun. Clark, it is said by one of his officers,‡ however, like his former self, was opposed to waiting at Vincennes, the radical error of the expedition. He advised an immediate march with the provisions on hand to the Wea or Ouitanon towns,‖ and that the residue on the boats should be brought up by a detachment left for that purpose. Such advice bespeaks the General's former energetic character in previous expeditions into the Indian country; when a little meal mixed with sugar composed all the rations of the men. But to have thought correctly in the former course of Gen. Clark was, to have acted decisively, why was it different now? Where was the overrul-

* Marshall.

† Idem, I, 250.

‡ Capt. B. Gaines' letter to the author.

‖ The mouth of Vermilion.

ing spirit that had captured forts armed with cannon at the head of western riflemen? The melancholy answer is left to be made by every reader. As this is the last occasion on which Gen. Clark will be presented to the student of western history, it may not be improper, although out of chronological order, to recount the remaining career of this renowned officer. The expedition returned to Vincennes, where it was disbanded with a disgrace, which has never before or since attended the arms of Kentucky. "General Wilkinson, who was at the Falls of the Ohio, wrote to a friend in Fayette, that the sun of Gen. Clark's military glory had set, never more to rise."*

It was learned, and the information was confirmed in Gen. Harrison's Tippecanoe campaign, in 1811,† that the Indians, who had retreated from their towns on the Vermilion, had selected a place for an ambuscade among the defiles of Pine creek.‡ These defiles were thus described by the former author. "This stream presents a curious spectacle in that country. For many miles before it discharges itself into the Wabash, its course is through an immense mass of rocks, the sides of which are in some instances perpendicular. Few places can be found where it can be crossed with facility." So difficult was this passage that Gen. Harrison thought it most advisable to avoid it in his march. But the hero of Kaskaskia and Vincennes was quite as likely as any other officer, not to be entrapped by the natural fortresses of the country.

It has already been mentioned, that the State of Virginia had, in honor of Gen. Clark's Illinois campaign, twice voted its thanks and accompanied them on the latter occasion with a sword. The exasperation of feeling produced by the sacrifice of his private property to make good his individual engagements for the public service in his Illinois campaign, and a high sense of public injustice to his merits, impelled him to *break this sword and cast it from him.* The particulars of this transaction the author has not been able to obtain; and when interrogated about it by a beloved sister, Mrs. Croghan, "the veteran was *agitated, frowned and would make no distinct reply.*" Although but one opinion can be entertained of the inadequacy of a sword to testify the sense of a great Commonwealth for such services as Virginia received from Gen. Clark;

* Marshall, I, 249.

† Dawson's Life of Harrison, 204.

‡ Dillon, 202.

still, there can be as little doubt, that they could not, at that day, be fully appreciated. There can be still less doubt, that Virginia, magnanimous as she always has been, never did her fame more true honor than in renewing the present of a sword which had, in the anguish of a broken heart, been snapped into atoms by her heroic but mortified soldier. Well might he apply the lines of the great English bard to himself:

> "Bite, bite, ye bitter winds,
> Ye bite not half so keen,
> As benefits forgot."

The devoted tone of the following preamble to an Act of Virginia, and the eloquent letter of Gov. Barbour, reflect high honor on Charles Fenton Mercer, the author, as well as the Governor, who is said to have adopted the draft of that letter. Gen. Mercer had visited the hero in his retirement at Locust Grove,* and had been struck with the magnitude of the old soldier's services and the ingratitude of his native State. On returning to Virginia, at the assembling of the legislature, in 1812, of which he was a member, he procured the passage of an act expressing the gratitude and friendly condolence of the General Assembly of Virginia, with the following preamble: "Whereas the General Assembly of Virginia have ever entertained the highest respect for the unsullied integrity, the valor, the military enterprise and skill of GENERAL GEORGE ROGERS CLARK, to whom, and to his gallant regiment, (aided by the justice of their cause and the favor of Heaven,) the State of Virginia was indebted for the extension of her boundaries from the Atlantic to the Mississippi; and whereas the General Assembly have been informed that the hand of misfortune has overtaken this veteran chief; and that he, whose name was once a host filling his friends with confidence, and his foes with dismay, is now himself a victim of age and disease, and a dependent on the bounty of his relatives." This preamble concluded with the enactment that the Governor of the State present a sword with suitable devices to General George Rogers Clark, "accompanied with an expression of the gratitude and friendly condolence of the General Assembly of Virginia, with an annual pension of $400, being the amount of his half pay, as Colonel of the Illinois regiment. This act of the Legislature, so honorable, though so tardy, was executed by Governor Barbour, and the following most eloquent letter accompanied

* The seat of Major Croghan, near Louisville, Ky.

the sword, dated at Richmond, October 29th, 1812. "The Representatives of the good people of Virginia convened in General Assembly, appreciating the gallant achievements during the Revolutionary war of yourself and the brave regiment under your bommand, by which a vast extension of her empire was effected, and a successful issue of the revolution greatly promoted, have assigned to me the pleasant duty of announcing to you the sentiments of exalted respect they cherish for you, and the gratitude they feel at the recollection of "your unsullied integrity, valor, military enterprise and skill." Having learned with sincere regret that you have been doomed to drink of the cup of misfortune, they have requested me to tender you their friendly condolence—permit me, sir, to mingle with the discharge of my official duty an expression of my own feelings. The history of the Revolution has always engaged my deepest attention. I have dwelt with rapture upon the distinguished part you have acted in that great drama, being always convinced that it only wanted the adventitious aid of numbers to make it amongst the most splendid examples of skill and courage, which any age or country has produced. I feel a conscious pride that the name of Clark is compatriot with my own. I, too, most sensibly sympathise with you in your adverse fate, and deeply deplore that the evening of a life, whose morning was so brilliant, should be clouded with misfortune. The General Assembly of Virginia have placed among their archives a monument of their gratitude for your services; and as a small tribute of respect have directed that a sword should be made in our manufactory with devices emblematic of your actions, and have also directed that $400 should be immediately paid, as also an annual sum of the same amount."*

It may be gratifying to another generation to know the person and appearance of Gen. Clark. My information from personal knowledge is very limited. The author enjoyed but one opportunity of seeing the hero, tho' intimate with many of his family; this was in the decline of his life, when he had long become the victim of disease and misfortune, too probably flowing from public neglect. He was staying at Major Croghan's, in his own private apartment, where every visitor to that hospitable mansion called to pay his respects to a public officer whose merits grew brighter with

* Butler's Kentucky, App. 538.

their age, and the more thorough acquaintance with them, by a new generation. His chamber was a public shrine, where every patriotic breast desired to offer worship. Gen. Clark was a tall man, of robust constitution, and athletic make; his countenance, when I saw him, had something grave and serene, with a thoughtful heavy brow. The countenance was rather comely, though not lighted up with that spirit which had breathed fire into the hearts of the western riflemen, and fear into Indian warriors. He had accidentally lost one of his legs, when the author visited him, which confined him very much to his chair. There are several portraits of this distinguished man, one in the Clark Lodge of Free and Accepted Masons, at Louisville, Ky., from which a rather indifferent miniature was taken for the first edition of Butler's Kentucky; another exists in the family, taken at an earlier date; as to their fidelity the author must refer to better authority than his own.*

The author has thus portrayed, as he best might, the hero of Kaskaskia and Saint Vincents, the founder of Kentucky, and the great warrior of the West. He has given him the prominent and leading part in the whole drama of western conquest and settlement assigned to him by the testimony of all the pioneers, and confirmed by the records of the country. This conflicts with a popular notion extensively entertained beyond the western country, that DANIEL BOONE was the principal leader and most efficient spirit among the western pioneers. No mistake can be more profound. Not that the author would for one moment ignobly try to depreciate the real merits of Boone; he adopts and endeavors to pursue the sentiment of the poet "nothing extenuate, nor aught set down in malice." Boone was an unrivalled hunter, and honest and kind-hearted woodsman, and in a subordinate capacity a good soldier; but at no period of his life did his abilities, either natural or acquired, rank him as a leading spirit of Kentucky or the west, either in council or in action. He came at first to Kentucky as a

* Col. John O'Fallon, of St. Louis, Mo., a favorite nephew of the General, with whom he spent his vacations, when his uncle was staying at the Point of Rock in Clarksville, opposite to Louisville, in Kentucky. Here it may be that the heart of the nephew was warmed into emulation by his intercourse with the old western hero, and prepared for his own gallant career, at Tippecanoe, Fort Meigs and the Thames. At the latter battle he was first Aid to Gen. Harrison in a campaign which finally subdued the Indians, and terminated this war of races and conditions in favor of civilization, liberty and religion. Col. O'Fallon still lives at St. Louis, enjoying the undiminished regards of his fellow-citizens for the noble spirit of liberality and honorable generosity with which he dispenses a fortune earned by his energy and enterprise.

private hunter from North Carolina, and afterwards, in all probability as an agent of the great land company of Henderson & Co., certainly so in 1774 and 1775. But in no one expedition of higher grade than a scouting party was Boone a leader. It is true, that he bravely participated in the bloody battle of the Blue Licks, as has been seen, and gave advice on that melancholy occasion, which if it had been adopted, might in strong probability have averted, if it had not reversed the fortunes of that disastrous encounter. In this battle he was not the commander, but Col. John Todd, of Fayette county. Did Boone ever *conceive*, much more *lead* such expeditions, as either the mission to the Virginia Convention, in 1776, which eventuated in the establishment by Virginia of Kentucky *county?* Of the Illinois campaigns in 1778 and 1779, which tended so materially to the conquest of the north-western portion of the valley of the Ohio? Or the campaigns of 1781 and 1782? In all these measures, Clark was, by the admission of all his cotemporaries, the leading spirit, and after him Col's. Floyd, Ben. Logan, John and Levi Todd, Christian and Hardin.

But here the career of Gen. Clark closes, he lived and died the honored *guest* of Major Croghan. His death took place in 1817.

There is one more tribute to the merits of Gen. Clark, which may not be omitted. When in 1785, he attended as a commissioner to treat with the northwestern Indians at Fort McIntosh, at the mouth of the Great Miami, assisted by Generals Richard Butler and Parsons, the chiefs addressed the commissioners, when Buckongahelas, the head war-chief of the Delawares, not deigning to notice the colleagues of Clark, took him by the hand and said: "I thank the Great Spirit for having this day brought together two such great warriors as Buckongahelas and General Clark."*

A more fortunate issue attended the expedition of Col. Logan, who had been detached by Gen. Clark, from his camp at Silver creek, opposite to Louisville, to return to Kentucky and raise as expeditiously as possible another party to march against the Shawanees, whose attention it was supposed would be engaged by the Wabash expedition. "This officer, at the head of four or five hundred mounted men, crossed the river Ohio, at the point where the town of Maysville now stands, and penetrated the Indian country as far as the head waters of Mad river. In the words of one

* Dawson's Harrison, App., 466, and Olden Time.

of the actors,* Col. Logan would have surprised the Indian towns against which he marched, had not one of his men deserted to the enemy, and gave notice of his approach. As it was, he burned eight large towns, and destroyed many fields of corn. He took seventy or eighty prisoners, and killed about twenty warriors, and among the rest the head chief of the nation. This last act caused deep regret, humiliation and shame to the commander and his troops." The murder of this chief was, however, perpetrated in direct violation of the orders of Col. Logan. In the course of this expedition, the Kentuckians lost about ten men.† This as usual consoled the public mind, in some degree, for the failure of Gen. Clark. This expedition, it should have been previously mentioned, had been prepared in conformity with resolutions of the inhabitants of the District assembled in convention at Danville, sometime in 1786; the month is not mentioned in the proceedings, which are signed by William Kennedy as chairman. These resolutions, together with an order of the Executive of Virginia, were acted on by a Board of officers, who met at Harrodsburg, on the 2d day of August, 1786. These gentlemen among others adopted one appointing Gen. George Rogers Clark, "to act as general officer and to have the command and direction of the army, at this time, ordered in offensive operations against our enemy Indians." This expedition has already been mentioned.

Doubts had been entertained about the legality of impressments for provisions, &c. These were submitted by the Board to Judges Muter and Wallace of the District court, and the Attorney General Innes. These officers certified it as their opinion, "that the Executive have delegated to the field officers of this district all their power" in regard to impressments; and that they have a right to impress, if necessary, all supplies for the use of the militia that may be called into service." This opinion is directed to Colonel Ben. Logan who acted as President of the Board of officers.

[To be continued.]

* The late Gen. William Lytle, of Cincinnati, Ohio.

† Dillon, 203.

ARTICLE III.

Origin of Marion College.

AN EXTRACT FROM A FORTHCOMING WORK TO BE ENTITLED "TWENTY-FOUR YEARS' VIEW OF PALMYRA AND MARION COUNTY, IN MISSOURI."

By J. P. R.

(From the 2d chapter.) "About the year 1830, the Rev. Dr. Nelson, a Presbyterian minister, emigrated from Kentucky, and settled about thirteen miles northwest of Palmyra, in Marion County, in what was at that time a frontier settlement, there being but few settlers farther out in that direction—the land was mostly government land around and beyond that point—Dr. Nelson brought with him a high character for talents and piety—he had in his youth been an infidel, but since his conversion, which was many years anterior to his removal to this country, he had been much devoted to the proposition of christianity, and his powerful ministerial labors had been remarkably successful;—glowing with an ardent zeal and noble ambition, to do all in his power, like St. Paul, to advance that cause he had formerly opposed, and perhaps stimulated to a double zeal to labor for the spread of the Gospel, in order to counteract the effect of his own former opposition, and thus as far as was in his power, undo the wrong which he had committed, and which he much deplored, he, in conjunction with other members of the Presbyterian church, soon conceived a plan of erecting a college on the manual labor system, for the purpose of educating pious, poor young men for the gospel ministry. The most active of his associates in this design, were Dr. David Clark and Mr. William Muldrow, both members of the Presbyterian church. Which of the three was the originator of the scheme, we are not informed—it may have been Dr. Nelson himself—but we think it most probable that it was Muldrow, for he was emphatically a scheming man, of strong intellect, though uneducated and uncultivated, he was ever inventing some new project, on a stupendous and grand scale. Of a peculiar cast of mind, his ideas were all on a large scale, approaching the visionary; yet such was the energy of his character, that in several of his previous enterprises, thought by others to be visionary, he had gone farther in carrying them out, than it was supposed any other man could have done, under the difficulties he had to contend with and surmount. In this

way, he had raised himself from a state of poverty, not to affluence, to be sure, but to easy and independent circumstances. One of his many schemes, looked upon as Utopian, was the making of a remarkably large farm in the prairie, with very little force or assistance, which he succeeded in accomplishing by inventing a very large plow, which, by attaching about thirteen yokes of oxen to it, broke up the sod for several feet at once—he thus soon had a farm enclosed and in cultivation of about six hundred acres in one field. Thus he acquired the reputation for the possession of remarkable business capacity, and it was frequently said in common parlance, that he was "long-headed" and "could see far before him." In fact there is no doubt but that he possesses the faculty of "seeing as far into a millstone as he who pecks it," and were it not for a tendency which appears to be constitutional and irrepressible with him to run into extravagant and visionary anticipations, beyond the possibility of man, with his means to accomplish, he would indeed be as well qualified to compass large achievments as any man we ever knew;—but he, like all other men, together with high business qualifications, possesses a defect, that of improvidence and a disposition to run to extremes, which has hitherto defeated his grand projects at the moment of their fancied accomplishment. We are inclined, too, to the supposition that Mr. Muldrow first conceived the idea of the erection of a college, from a remark which we understood he made about the time the project was set on foot, that "he had been cutting down little sapplings, but was now going to cut down big trees and bore with a big auger," and from the additional fact that he entered the land at an early time around and adjoining the land which had been entered for the use of the college, with the design of laying off a town on it, which he afterwards did. Application was made to the Legislature in the winter of 1830 and 1831 for a college charter, which was granted. The college had no endowment, and not being able to raise the means to endow it extensively, the alternative was adopted of making it a self-sustaining institution, that is, to connect a farm with the college, and assign to each student a certain number of acres, which he was required to cultivate in some saleable grain, vegetable or other product for market—he being allowed so many hours each day for labor—the balance being devoted to study. There was a boarding-house to be attached to the college, at which they were to be boarded for a certain price, which was quite moderate. A

calculation was made that each student could raise on the ground allowed him for cultivation, a certain quantity of grain or other products he might choose to cultivate, which would bring in the market a certain price respectively, which was fixed upon in the estimate—and thus estimating the cost of boarding and tuition charges, a balance was struck, and a considerable amount ascertained to their satisfaction to be in favor of the student. That balance, however, was not to be for the benefit of the student exclusively, but the balance in favor of each student was together to form a fund to be appropriated to assist in paying the President and Professors in the college;—it being the aim to afford to any poor young man the means of obtaining acollegiate education, without one cent of money, save that which was earned by his own industry. That object attained, it was thought to be proper to appropriate all his surplus earnings to the payment of the salaries of the officers of the institution. By doing so, they would be able to procure the services of men of the best talents in the country, which would be for the common good of all connected with the institution. It was thought, moreover, that the students laboring on the farm, would prevent injury to their health from study and a sedentary life, and add to the vigor both of body and mind.

The plan appeared to be benevolent and plausible, and the friends of education became elated with the prospect of having a college in their midst, established with but little expense, because of the cheapness of the lands on which it was located, and conducted on a plan of industry and economy, which would as effectually impart to the poor orphan young men of the nation who might choose to avail themselves of its privileges, a classical education—as the proudest college in the land—though the favored recipient of princely munificence.

Under these humble, yet promising auspices, was Marion College ushered into being, as a candidate for literary distinction. As a matter of course, Dr. Nelson was by common consent elected its first President, and a Board of Trustees appointed for its control and superintendance. The friends of education, to the extent of their ability, contributed in small sums, to aid it in starting upon its anticipated career of usefulness—and it was determined by the Board of Trustees to make an appeal to the liberality and philanthropy of the friends of the church and of education in the Eastern States, and ask contributions from their ample means to place the

college on a firm and respectable basis—for this purpose some person or persons were to be sent to the East on a collection agency —and from the reputation Mr. Muldrow had acquired as a man of business and management, he was selected as the most suitable and efficient person to be charged with that mission. He had the unlimited confidence of the whole faculty, particularly of the President, Dr. Nelson, who remarked in reference to a serious attack of the small pox which Mr. Muldron had, that the Lord was preparing him to go through the world for the accomplishment of great good to the church. He accordingly visited New York, Philadelphia, and other cities in the East, highly recommended and commended to the friends of education. He was successful even beyond expectation in obtaining funds for the college, and made several tours east with the like success. But he was even more sucessful in some other things. With his characteristic shrewdness and foresight, he had connected his own with the interests of the college. As he said himself, he wanted to *do* good and *get* good. We have no doubt of the sincerity of that remark, nor do we doubt that he sincerely desired to be useful to the cause of education, and to promote the spread of Christianity. But when by so doing, one's own private interest may be at the same time subserved, and in exact proportion with the interest of the church, because depending upon and growing out of it, it is quite natural that we should manifest a considerable amount of zeal in a good cause. We do not attach any criminality to the desire to promote our own interest in connection with the interest of any cause of benevolence —provided we do not thereby injure that cause, so long as our leading object is to do good, and we can accomplish that object without embarrassing it or prejudicing it by our own cupidity, we can see no impropriety in incidentally, but secondarily advancing our individual interest; the wrong and the danger is in inverting the order, and instead of acting with a single eye to the public good, or to the good of the cause of any benevolent and useful object in which we are engaged. If we make our own private interest the leading object, giving it the preference, and make the other cause the mere incident, or use it merely as a necessary instrument to advance our own private purposes, then our motives become criminal.

We have spoken of the *danger* of such a course. We by no means intimate that Mr. Muldrow alone is obnoxious to that charge; we speak of it in general terms, as a characteristic trait in

man's fallen, vitiated and corrupt nature—that self-interest is in almost every instance, sure to mingle in too great proportion, in all the actions and affairs of life. It is the ruling motive alike of all men, though in some repressed and more properly controlled than in others. It is the all pervading foible that has its secret home in the bosom of all mankind. Other vices of bold and daring front and frightful mien, may be seen, combatted, overcome, shunned or avoided, but this one of self-interest, having its native home within the human heart, deeply concealed and hidden beneath the labyrinthian folds, and deep recesses of that deceitful organ, and closely interwoven with every fibre of our being—indeed making a part of that being—insidiously and unseen even by ourselves, works its way into and exercises an improper influence in all the affairs of life. And having gained possession of the citadel of man's moral or *im*moral nature, defies all our efforts at dislodgement—because screened, concealed and defended by its associate, self-love, whose powerful pleadings and eloquent advocacy is almost sure to succeed in procuring a verdict in its favor.

[To be continued.]

Article IV.

Review.—By Mann Butler.

COTTON IS KING: OR THE CULTURE OF COTTON AND ITS RELATIONS TO AGRICULTURE, MANUFACTURES AND COMMERCE, TO THE FREE COLORED PEOPLE AND THOSE WHO HOLD THAT SLAVERY IS IN ITSELF SINFUL. *By an American.* Cincinnati, 1855.

This is a work, tho' under a coquetish title, worthy of the most serious attention of every patriotic American, whether north or south of Mason and Dixon's line. It is at once cogent, well-informed and temperate. While it must delight every friend to the continued glory and happiness of this aspiring republic, it need not offend the most determined abolitionist. What then are its merits, the reader naturally exclaims? They consist in the following propositions, which are fortified by authentic evidence and sound temperate argument:

1. The utter failure of the free colored race in the non-slaveholding States, to confirm the hopes of their white friends, by improved morality and industry.

2. The insuperable aversion of the free colored race to labor in the articles of slave labor most demanded by the markets of the world, as cotton, rice, sugar and tobacco.

3. The stubborn resistance to emigrate to a purely African and civilized state, as Liberia, encouraged, too, by mistaken friends.

4. The vast ramifications of the products of slave labor with the agriculture, the mechanic arts, the manufactures and the commerce of the United States as well as those of the civilized world.

5. The participation and even its encouragement by the friends of the colored race, *our amis des noirs*, and even the free negroes themselves, in African slavery, by freely and eagerly consuming the products of slave labor, on which slavery subsists, and by which it lives.

6. That slavery is a great civil and social evil identical in principle with *despotism;* but which is to be tempered by mercy and religion, till, like the other evils of human life, it can be abolished without endangering the civilization of society.

1. The utter failure of the free colored race in the non-slaveholding States to confirm the hopes of their white friends by improved virtue and industry.

It ought not to be forgotten in viewing the progress of a race considered and treated as an inferior and degraded one, that they can not be expected to feel a full social impulse to exertion and forbearance; the same degree of improvement ought not to be expected of them in the absence of the most influential incentives to human effort. But while admitting this extenuation, will it cover or defend the social delinquency of the free colored race in the non-slaveholding States?

The first fact which presents itself to the notice of every good citizen and every lover of orderly and prosperous society, is that after forty-seven years after Pennsylvania abolished slavery within her limits," which was in 1780, "*one third* of the convicts in her penitentiary were colored men; while few of the other free States were more fortunate; and some of them even worse—one half of New Jersey's convicts being colored men."* While this was the ratio of colored to white criminals, that of the white population of Pennsylvania to its colored was, in 1830, as 1,112,784 to 38,435; that is more than 25 to 1. The same comparison of the two kinds

* Boston Prison Discipline Reports, 1826-1827.

of population in New Jersey gives 299,590 whites to 18,283 colored people, or more than 15 to 1. At these ratios, the colored criminals in Pennsylvania should have been $\frac{1}{25}$ of the whole, while it actually amounted to $\frac{1}{3}$; and in New Jersey the colored criminals should have been $\frac{1}{15}$ of the whole criminal population, while it actually was $\frac{1}{2}$. The actual degradation and inferiority of the African negro race, not the Abyssinian, not the Egyptian, not the Moorish race of northern Africa, for these are well established different species of men, but the genuine Negro race, is a melancholy fact, authenticated by its earliest memorials. The continued barbarism and the abject slavery of this race at home, its notorious sale to all the slave buyers of the world, possibly to the ancient Egyptians; but certainly from the time of Las Casas to the present, are pregnant proofs of degraded nature. This is not said to discourage attempts at the improvement of this unfortunate race; but rather to stimulate its friends to wiser and more energetic efforts. But what observer of the world around him can avoid asking the question, how comes the Negro race so long subject to slavery and sale as inanimate merchandize, while other races of mankind have redeemed themselves from this condition, in some degree, more or less? This truth is exemplified in the condition of those who were the serfs of ancient Europe, and the northern regions of that part of the world in modern times? Why is the Negro more subservient to slavery than any other race of man? His resistance to improvement among a superior and dominant race might be admitted without precluding him from the hope of amelioration under more propitious circumstances.

The actual degradation of the free negro, below the standard of civilization around him, is a fact that can not safely be denied in the United States, in Canada, or the West Indies. Even in the free dominion of the North, (possibly an unfavorable climate for the development of the negro,) he withstands the example all around him, and vegetates in poverty and misery.

Were the negro not thus averse to order and industry among the free whites, why have the free States of the Northwest, Ohio, Illinois and Indiana obstructed their settlement among them so pertinaciously? This, too, in a market under so stocked with laborers? They can not feel the apprehension, which the slaveholding States may well entertain, of their corrupting and seducing their slaves; and still they all, and I believe some of the Eastern States,

act on the policy of excluding the free negroes from among them. Nor have any of the most rabid advocates of negro freedom relaxed their laws for the admission of negros in the halls of legislation; and but most partially, and hardly as an act of society, have they admitted the black race into family alliance by marriage with the white.

The testimony to this obstinate degradation is confirmed by the report of missionaries and travellers of most undoubted veracity, and likewise of the friends to the negro in the non-slaveholding States. I will begin with the last; it is a letter from the Hon. Gerritt Smith to Governor Hunt, of New York. It is dated in 1852; and after "speaking of his ineffectual efforts to prevail, upon the free colored people to betake themselves to mechanical and agricultural pursuits, says: Suppose, moreover, that during all these fifteen years, they had been quitting the cities where the *mass of them rot both physically and morally*, and had gone into the country to become farmers and mechanics." Again, in the same letter he says, "I do not say that the colored people are more debased than white people would be, if persecuted, oppressed and outraged as are the colored people. But I do say, that they are debased, deeply debased; and that to recover themselves, they must become heroes, self-denying heroes, capable of achieving a great moral victory—a two-fold victory over themselves and a victory over their enemies."*

Such is the condition of the free colored race in the non-slaveholding States.

Nor is their condition better in Canada; of four stations under the care of the abolitionists, at the opening of 1853, but one school remained. The missionaries formally asked the parent society to be released, because say they, "of the opposition to white missionaries, manifested by the colored people of Canada;" "and the interested misrepresentations of ignorant colored men pretending to be ministers of the gospel." For these reasons they say, that the funds of the association could be better employed *elsewhere*."†

In the West Indies, the account is still worse. The American and Foreign Anti-Slavery Society, for 1853, say that the friends of emancipation have been disappointed in some respects at the

* Idem, 146.
† Idem, 134.

results in the West Indies, because they expected too much. A nation of slaves can not at once be converted into a nation of intelligent, industrious and moral freemen." "Licentiousness prevails to a most alarming extent among the people. The almost universal prevalence of intemperance is another source of the moral darkness and degradation of the people. The great mass among all classes of the inhabitants, from the Governor in his palace to the peasant in his hut, from the bishop in his gown to the beggar in his rags—are all slaves to their cups."*

Mr. Bigelow, of the *New York Evening News*, after spending a winter in Jamaica, for the very purpose of observing the condition of things, mentions the enormous quantity of lands thrown out of cultivation since 1848, says, "This decline has been going on from year to year, daily becoming more alarming, until at length the island has reached what would appear to be the last profound of distress and misery;" "thousands of people do not know when they rise in the morning, whence or in what manner they are to procure bread for the day."†

Gov. Wood, of Ohio, on his way to Valparaiso, in 1853, stopped at Kingston, in Jamaica, and thus describes what he witnessed, "We saw many plantations, the buildings dilapidated, fields of sugarcane half-worked and apparently poor, and nothing but that which will grow without the labor of man, appeared luxuriant and flourishing. The island itself is of great fertility, one of the best of the Antilles; but all the large estates upon it are fast going to ruin. In the harbor were not a dozen ships of all nations—no business was doing, and everything you heard spoken was in the language of complaint. Since the blacks have been liberated, they have become indolent, insolent, degraded and dishonest. They are a rude beastly set of vagabonds, lying naked about the streets, as filthy as the Hottentots, and I believe worse."‡ Again, Bishop *Kip*, on his passage to California, in 1853, also stopped at the same Jamaica port, and declares that "the streets are crowded with the most wretched looking negroes to be seen on the surface of the earth. Lazy, shiftless and diseased, they will not work since the manumission act has freed them. Even *coaling* the steamer is done by *women*. About a hundred march on board in a line

* Idem, 139.
† Idem, 141.
‡ Idem, 142.

with tubs on their heads, (tubs and coal together weighing about 90 pounds,) and with a wild song empty them into the hold. The men work a day, and live on it a week. The depth to which the negro population has sunk, is we are told, indescribable."* This testimony might be confirmed by other authorities, indeed by every traveller to the non-slaveholding islands in the West Indies, or proprietor in those oppressed and harassed colonies of European masters and foreign legislators. It is most amply corroborated by Mr. *Barton Premium*, in his "Eight years in British Guiana, from 1840 to 1848 inclusive."† Laborers deteriorating season after season, year after year; wages rising, and fields turning out of cultivation for want of laborers and sufficient work. Expenses of cultivation accumulating on the planter.

A planter who made 700 hogsheads, assured the author that it took his whole crop of sugar to pay the expense of his plantation, and he had only his sum clear."‡ "There might be," he says, "nearly a score of such plantations out of 200 left in the colony. Of the rest, "there is not one that affords a revenue." "Estates sold in 1849 fetched fifty per cent. below those of 1840." "One estate which was sold in 1839 for £20,000, was now (1856) sold for £8,000." These are but specimens of wholesalu ruin, diminution of product and depreciation of property throughout the province of Guiana, under the rule of a British queen and parliament.

And shall our countrymen labor to bring on a similar state of ruin and desolation on their own fellow-countrymen? men of their own race, to favor a foreign one, of most intractable and stubborn and low dispositions? Shall the free white men of the United States struggle against the peace and happiness of their own fellow white men, to bestow freedom on a race, which will not enjoy that freedom; but will abuse it, as all experience with them in our own bosom proves? Shall the black man be freed by the ruin of his white brethren, to brutalize the negro still more deeply?

To be continued.

* Idem. 142, 143.

† London, 1850. De Bow's Review, Ap., No. 1855 and sequel.

‡ De Bow, Ap. No. 491.

ARTICLE V.

Subsoil Ploughing.

By HON. A. BEATTY, of Ky.

The practice of subsoil ploughing has hitherto been but slowly introduced. If the farmers of our country were well informed as to the great benefits which would result from the general introduction of this practice, there is reason to believe it would soon become almost universal in all situations adapted to this recent improvement in agriculture.

The object of subsoil ploughing is to pulverise the earth to a considerable depth beneath the surface, say ten or twelve inches. The chief advantage arising from this deepening and pulverising the soil is to prevent the loss of the various fertilizing ingredients contained in the rains that fall upon the earth. If rains fall upon hard soil, ever so little inclining, nearly all will run off. If the soil be ploughed to the depth of only three or four inches, a larger proportion of moisture will be absorbed ; but if these fall rapidly, the few inches of pulverized soil will soon become saturated, and the surplus will be drained off and carried into the creeks and rivers, and thus be entirely lost. If the soil is pulverised by subsoil ploughing, its capacity and fitness for absorbing moisture will be greatly increased, and thus nearly all the rain that falls, with the fertilizing ingredients contained therein, will be preserved for the use of the growing crops. The fertilizing ingredients contained in the falling rain, will penetrate not only to the depth of the pulverized soil, but by absorption will gradually penetrate to a great depth. In time of drought, this moisture will again, by absorption, be brought back to the loosened soil, pulverised by the subsoil plough. As the roots of all growing crops can readily penetrate soil that has been well pulverized, they will thus be supplied with the necessary fertilizing ingredients, not only from the occasional rains that may fall during their growth, but also by the moisture absorbed from the hard soil beneath.

When we reflect that it is from rain water a very large proportion of the food of plants is derived, it will be perceived, at once, how important it is that farmers should, by all practicable means, preserve for future use all the rain which falls upon their cultivated grounds.

The quantity of fertilizing ingredients, contained in rain water, is very great. M. Barral, of Paris, has made some very useful experiments on this subject, from which it has been estimated that there *annually* falls, in Great Britain, in rain water, 400,000 tons of amonia; 1,850,000 tons of nitric acid; 279,000 tons of chlorine; 640,000 tons of lime; 240,000 tons of magnesia—altogether 3,409,000 tons. All these are very valuable ingredients in furnishing food for plants and growing crops of all kinds. Beside these, growing crops require a small supply of alkali such as potash and soda. These ingredients are not supplied by the rains that fall upon our soil; but as they cannot be carried off by evaporation, they can in a great degree be given back to the soil in the shape of straw, cornstalks, ashes and manures of all kind; clovering land, feeding stock thereon, &c. The alkalis are extremely important to growing crops, (some requiring more and some less) so much so that without a due proportion of alkali a soil, amply supplied with the fertilizing ingredients before mentioned, would be perfectly barren. It is immensely important, therefore, that our crops should have a full supply of alkali. Subsoil ploughing is greatly beneficial in this respect, as it enables the roots of growing crops to penetrate to a considerable depth, and thus draw a supply of alkali from the store house in which it is laid up in considerable quantities.

If nearly three and a half millions of tons of fertilizing ingredients are *annually* supplied to Great Britain, the supply to our great country (supposing only a proportionate quantity of rain to fall in the United States,) would be immensely great. In our present mode of cultivation two thirds, probably more, of those valuable ingredients are wholly lost. During the last summer, in consequence of the small quantity of rain which fell, after the 1st of July, our crops of corn, in many parts of the country, were nearly ruined. They were litterally *starved* for the want of subsistence or food. If by subsoil ploughing our abundant rains, in April, May and June, had been enabled to penetrate our rich soil, and thus preserved for supplying our growing crops, in July and August, we should have heard no complaints of an almost total failure of the corn crop.

It is just as necessary that our growing corn should have a supply of food as that our horses and mules should have their regular supply.

As we can not depend certainly upon a sufficient fall of rain in the months of July and August, to furnish food for our crops of corn, hemp, potatoes, &c., we should guard against a possible deficiency by laying up a sufficient stock of that which is so liberally furnished in April, May and June by a bountiful Creator.

Other advantages, resulting from subsoil ploughing, might be enumerated, but those suggested above are abundantly sufficient to recommend the general adoption of this practice by agriculturists.

July 5th, 1855.

ARTICLE VI.

From the American Phrenological Journal.

A New, Very Cheap and Durable Mode of Building.

Nature makes ample provision for supplying every want of her creatures. The demand for a HOME is a primary, and one of the paramount requisitions of every living thing; and the higher the creature the more imperious this demand. Of course, mother nature, in her ample supply of all the necessities of her children, has by no means omitted to supply ALL MANKIND amply with the materials for constructing themselves good houses: while phrenology points out, in its discovery of the constructive instinct, an ample provision for manufacturing these materials into comfortable dwellings. To what, then, does nature point as her leading material for the structure of buildings, both for household and other purposes?

Not to wood: because her economy is to crowd upon the earth's surface just so many human beings as she can possibly feed, whereas, to appropriate so much land to the growth of timber, as will, in all coming time, be requisite for building purposes, would curtail the number of human beings, for the more land there is appropriated to timber, the less food can be raised.

Besides, timber is perishable, so that it will take a great amount of land merely to repair and rebuild dilapidated structures, to say nothing of creating new ones.

If it is objected that our timber grows on wild land, not needed for agriculturol purposes, I reply this is true now, but will not be a hundred, or certainly a thousand years hence: for by that time existing woodlands will all be cut off, and also wanted for agricultural purposes, for whatever land will grow building timber, will raise edibles.

Nor is it the order of nature that a house should be every day rolling down over our heads, nor need repairing every few years.

Nature has, undoubtedly, in providing for this home instinct, created some imperishable building material, and indestructable by fire. Wood cannot, therefore, be her primary provision.

Brick is better, yet is liable to many objections. It is too dear. Poor people can not afford to build with it. Besides, it takes a regular mason to lay them, whereas nature has obviously provided for every man to build his own house, just as much as to rear his own fruit, food, &c., eat, breathe, exercise, &c., for himself, and after his own fashion.

Clay, sun-dried, in large square blocks, is doubtless one of nature's building materials, but of this it is not our present purpose to speak.

Lime is obviously one of nature's first provisions for building. Cheap, abounding almost everywhere, various in quality, such as water lime of various kinds, &c., indestructible by fire, water, or frost, growing harder with age, and possessing extraordinary cohesive power, together with many other valuable properties, who can doubt that it should enter largely into building materials? And so it does. Yet I opine far less than nature designs it should. Mixed with sand it makes mortar which becomes nearly as hard as brick, or even stone, and the older the harder, and the coarser the sand used, the stronger the mortar. Yet it is used mainly to put together brick, stone, &c. But why not use mortar alone, and run it into such shapes as suits our liking? Why not use coarse gravel, and even pebble stones, just as we now use sand, mix them with lime, and put this gravel mortar into our walls, and even compose our walls, outside and in, of this material? It is solid, indestructible by fire, frost and water, lasts for ages, is "cheap," easily made, can be put up by any one, and be run into whatever shape we like. Can there, then, be a reasonable doubt that this is, after all, nature's great building material? Everything about it says, "This is juit the thing."

And recent experience confirms this verdict. J. Goodrich, of Milton, Wisconsin, formerly of Alleghany county, N. Y., living on a prairie, and thinking that nature had provided other building material where timber is thus scarce, knowing that under the prairie soil and subsoil, which is about three feet deep, there was coarse, clean gravel, and often gravel banks, and also, that lime abounded throughout the West, reasoned with himself thus, "Why will not this coarse gravel and lime make good walls?" and reduced the reasoning to a practical trial. I have seen him and examined this mode of structure thoroughly, and pronounce it, in my judgment, every way better than either brick or wood, and yet not one-fourth as expensive. The principal expense consists in drawing the materials and lifting the mortar into the walls. Sand abounds almost everywhere, and can be got—especially coarse gravel—for nothing; and lime is cheap, say twelve to fifteen cents per bushel, unslacked. In this way, one bushel of lime serves for twenty bushels of

gravel, so that 100 bushels of lime will put up 2,100 bushels of mortar, or some 2,500 cubic feet of wall, which, supposing your wall is one foot thick—enough doubtless for all practical purposes —would build the outside wall of a house thirty feet square and twenty feet high; and if the inside walls were eight inches thick, and run through the house each way, one to form the entry and the other to divide the house into front and back rooms, it would take only about thirty bushels more, or 130 bushels in all, at a cost of less than twenty dollars! And how many days' work is it likely to require to slack this lime and shovel the gravel into it, and stir up the two together—for no working is needed, only mixing—and carry it up into the walls? There are about 3,300 cubic feet of mortar. Cannot a man mix and carry up, on an average, one hundred cubic feet per day? I should think he could double this, yet at this rate the naked walls would cost thirty-three dollars for labor—and the commonest laborer can do it—supposing labor to be one dollar per day; and say, perhaps seventeen dollars for lime, are only fifty dollars. The chimneys can be carried up in the wall, as is now done in brick walls, and with trifling additional labor, and with no additional cost of brick and mortar. The walls of a good sized dwelling-house were put up in Elgin, Ill., last year, for about forty dollars, as I was informed by Mr. Quigley, who was then building a church in that place.

"But will it stand?" ask many, half convinced that there may be something in this mode. Milton Academy, the first building put up in this way, has now stood, without anything on the outside of it, some six years; and not only without the least sign of decay, but becomes harder and stronger every year, which is known to be true of all good mortar. I examined the second building put up in this way—a blacksmith shop—with the following result: Finding a flint pebble stone—one of the hardest kinds of stone—of the size of a turkey's egg, which came out of the outer edge of the wall, I took a hammer and flaked off piece after piece, till I had clipped away two-thirds of the stone, meanwhile the balance retained its position unmoved! I then drew my hammer—and it was a heavy one—repeatedly, as hard as I could upon the wall, making scarcely more indention than upon a stone; so I was compelled to regard the walls as even more solid than brick. Mr. Goodrich said that for six cents per blow he would let a man pound with a sledge upon his parlor walls, and let any one bang away on his blacksmith shop till they were tired, and added that many had done so. Readers will remember that I am stating what I myself saw and know to be true. So certain am I of success, that though my timber was ordered for the house of my life, to be built nearly on the principle mentioned in my "Home for All," yet I consider this so much cheaper and better that I have countermanded the order except for the floor timbers, and by the time this article will

be read, shall be putting up my walls of lime, sand and broken up slate stones, after the plan developed in this article.

In travelling through Illinois, Wisconsin and Michigan, I saw probably one hundred houses and some fences—for this is doubtless the best and cheapest mode of fencing prairies—built in this way, and properly put up, they look well enough from the road, without anything put upon the outside, but, finished off with a coat of lime and sand, which can be marbled and colored, they look splendidly—far better than either wood or brick. Yet, this marbleing and coloring can be done after the structure is completed, as well as at first.

Some of the houses I saw were cracked, of course because the foundation was defective, and brick or stone will crack under like circumstances. That these cracks were not necessary to this mode of structure is evident, because only two or three of those I examined were thus affected. One part of the foundation having settled, of course no alternative remained but to crack. Yet such cracks do less damage than in brick houses, and are easily covered up, and can do no real injury to the strength of the edifice. The partition walls, it must be observed, go up at the same time, and tie the whole building together.

By this process no lathing is needed, except overhead, for the plastering is slapped upon the wall inside and out. Yet as these walls are conductors of both heat and cold, as well as moisture, the outside walls should be carried up with an open space within them, for dead air, or else be furrowed, lathed, and plastered inside: yet this is a detail to which the mason can attend as he likes.

Below is an account from Mr. Goodrich himself, its inventor. After I have tried it, I shall give you the result in a future number of the Journal.

Gravel or Cement Building.—The following statement of the method and cost of constructing buildings of cement, has been kindly furnished us by Mr. J. Goodrich, who has had considerable experience in the business, being the builder and proprietor of the greater portion of the beautiful village of Milton, situated at the head of the Prairie du Lac, in Rock county, Wisconsin. The success he has met with is known to many of our readers who have visited that section of the country, as he already has several fine dwellings, a tavern house, a large block of stores, an academy, and various other buildings completed, presenting a very pleasing appearance from their neat exterior, and giving the amplest evidence of the utility of cement in the construction of buildings of all classes:

"My buildings are made of clear, coarse gravel and common quick lime. I use twelve parts of the former to one of the latter; but if the former is free from dirt, soil, or clay, and the lime well-burned or fresh, you can not hit amiss, for it will cement in any proportion from one part of lime to one of gravel, to one part of lime to twenty parts of gravel. I prefer laying the foundation with

stone laid in mortar, the same as for a brick house. The gravel walls are made of any thickness, according to the size and height of the house to be built. I have made the walls from ten to fifteen inches thick in my buildings. For curbing we use pine plank, straight grained, one and a half inches thick, and twelve inches wide, and have enough to curb all the walls around the building at once. The planks are held up by narrow strips of boards, set up endways and tacked with a nail to the plank at or near each end. The planks are held together by clamps made of pieces of scantling some two feet long, with strong pins put in far enough apart to include the thickness of the wall, and also the two curbing planks. These clamps are hung over the top edges of the planks, and said pins hang down on each side to hold them together, while a small stick, as long as the wall is thick, is placed between the planks and immediately under the clamps, to hold the upper part of the planks apart. As the wall rises the lower edge of the planks lap on the former layers, so as to keep the bottom right. We use a plumb which is indispensibly necessary, to carry up the wall true. The window frames and door frames ought to be as wide as the wall is thick, and about three inches thick, framed together, grooved and planed on the face side to let in the stoppers to hold the sash and tabbeted. For the doors to shut in they need no casing, which lessens the cost of finish very much. The joists are put into the wall the same as brick walls, hence you need no post, sills or beams. I make flat roofs, so as to not need any plates or rafters, barely letting the joists give a pitch of half inch to the foot, which is sufficient to cause the water to run off. I nail on to these joists straight-edged pine boards, and plaster on two inches thick of gravel mortar, so as to make it fire proof. Then on the top of this, as soon as it becomes dry a coat of tar; then sift on sand, which makes it hard as it settles into the tar; then another coat likewise, and if it leaks, several coats of tar and sand until it is water tight. This soon becomes very hard and solid, and it is cheaper than any covering I have yet found, and apparently durable. I carry up the wall still higher than the roof, so as to carry a balustrade in any shape that taste may dictate. These walls are rough and uninviting to the eye, but can easily be made smooth and level by plastering on a coat of coarse sand and lime, say one of the latter to eight of the former and floated on to level up. Then a fine coat, say half lime and half sand, put on with the trowel and brush, which makes a hard finish for both outside and in. Then whitewash two or three coats, with fresh lime, and you have a beautiful white finish which is both imposing and inviting to the eye.

"The cost of these walls will be about one-third of the cost of brick; say from five to six cents per cubic foot, before they are plastered, including labor and material, board, &c., and they may be put up by any common laborer, if he can make the wall straight

and plumb. If they are built in the early part of the season, and of good material, they are sure to stand; but they do not become hard like stone at once. This hardening process is slow but sure. The carbonic acid which is first driven off from the lime, by the burning in the kiln, returns through the atmosphere in the same quantity, and re-unites with the lime in the wall, and this converts the lime into stone again; and as the gravel is stone, it of course all becomes stone or rock and will be as durable as time. In fact, you can break the pebbles of gravel with a hammer before it will loosen them from the walls."—*Freeport Journal.*

The Gravel Wall Mode of Building.—As our article on this mode of building, in a former number, awakened considerable interest, and as we have made some personal experiments touching it, it is due to the readers of this volume to give them a few of the results of our own experience in this matter. At first, as to the solidity of the structure. We find it altogether stronger and more applicable to building than brick walls. Having occasion to tear down a portion of one of our walls which had been put up some six weeks, we found it far more difficult to do so than to tear down a brick wall which had been built nearly a year, although the mortar had hardly began to attain its ultimate adhesiveness and solidity. The wall in question was also only eight inches thick, which is of course the thinnest wall that can be made of brick; and in general we would pronounce eight inches abundantly thick for an inside wall of any house unless its size was truly enormous, designed for domestic purposes, and deem one foot abundantly sufficient for the outside walls.

Secondly, as to the materials. Our own house was built upon a knoll or eminence formed of slate rock, some portions of which had to be dug away to the depth of from one to six feet. Of course a large amount of this slate rubbish was thrown up. and different from the method laid down in the former article, we employed this slate rubbish in place of sand, and out of this formed a great part of our walls. Our mode of procedure was this: first taking three barrels of unslacked lime and wetting and slacking it and by water reducing it to a thin and cream like consistency, we added fifteen barrels of sand, though these barrels were hardly as large as those of the lime, and added sufficient water to allow the whole to mix or temper easily. After such tempering, beginning at one side of the bed, we would throw on a barrel of this slate rubbish, then a shovel or two of this lime and sand, then another barrel of rubbish, and another two or three shovels of this mortar, until we had put on thirty-five or forty barrels of the rubbish; then beginning at the end of the mortar-bed where we left off, one man would wet and shovel over these materials until they were well intermixed, and throw them into a wheelbarrow, from whence they were wheeled to the walls and, if not too high, thrown directly into the boxes; and,

if too high for that, would be shoveled into a small mortar-bed, say four by eight feet, on legs, thus raising it from six to eight feet, and from this shoveled into the boxes, constituting a layer on the walls. Of course every time it was shoveled only still further tempered or mixed these materials and made them the better, and while the bed was being thrown into the boxes, from twenty to thirty barrels of large stones were thrown in along with it, thus making some eighty or ninety barrels of stones, rubbish and sand for three barrels of lime, or about thirty to one, and this my own experience regards as abundantly sufficient; at all events I am willing to put my walls, for solidity, in contrast with any I have ever seen constructed of wood, stone or brick. It is really surprising to see how tightly those slate stones are bound, even where only a small portion of them is attached to the wall. Of course the whole strength of the wall depends on the lime. At first I employed a greater quantity of lime, relatively, than mentioned above, but I made up my beds in the proportion above stated and deem the lime abundantly sufficient; at the same time that I acted partially upon the advice of many of my friends, I erred on the side of too much lime rather than too little. I should add, that as this slate rubbish was shoveled up on the floor preparatory to be thrown into the beds, one man stood upon the pile with a light sledge hammer pounding it in order to save sand. What is required is that there be a regular gradation from finer particles to coarse ones, and so up to stones as large as can well be inclosed in the boxes. It is obvious that the amount of sand and also of lime should be made in proportion to the fineness or coarseness of the materials employed, or thus, suppose a quart of fine sand is to be fitted for a wall, all the particles of this sand must be coated with lime in order to give that adhesive power, but suppose a stone the same bulk is to be fitted for a wall, it has only to be coated, so that it requires the merest particle of lime, compared with the same bulk of sand, therefore in as much as our materials were so largely composed of slate stones less lime was requisite. In frequent instances, these flat slate stones, wide but thin, as they were thrown promiscuously into the boxes would form vacuums, but instead of injuring the wall, I considered this beneficial, because it furnishes a place for the plastering to fasten on, or even, if there should be occasional holes in the walls, what harm can result therefrom. We omitted to mention in the proper place a few facts touching the strength of our walls. On an eight inch wall before it had been finished two weeks, we placed a mortar bed into which were put one hundred and fifty barrels, each barrel containing nearly a bushel of this mortar and slate, together with several barrels of water, without any props underneath. Here then were several tons placed upon some ten feet of an eight inch green wall, a greater weight by many fold than would be placed upon it in the ordinary use of a house.

Upon a foot wall, we placed within three days after its completion, and it was completed in three days from being started, it being nine feet high, several tons of the slate rubbish, say from ten to fifteen, and before this wall had been completed a week, it was loaded so heavily that at least a dozen of the floor timbers broke off with the pressure and yet the wall remains perfectly solid. No wall of course needs stronger trial than this, for if so green a wall will bear so much, what will the same wall bear when fully consolidated, for it becomes harder and still harder for eighteen and even twenty years.

Thirdly, as to the expense of these walls. I cannot give those details on which my judgment is based, but that judgment is that they can be built five times as cheap as wood, and eight times as cheap as brick or stone. Almost the entire cost is labor, and after one has acquired sufficient experience to know how to work the mortar in those beds economically, it is perfectly surprising how much a given amount of labor will accomplish. This can be seen at once from the fact that it consists mainly in shoveling the coarsest materials, for it is shoveled into the mortar-beds, worked mainly by the shovel, and shoveled into the boxes, instead of being carried there in hods. A man will shovel to a given height a far greater amount of matter than he can carry on his back; or thus, suppose a given amount of mortar is to be shoveled twenty-one feet—a man can easily shovel seven feet—let him then shovel from the ground into a box, from that into another, and from that into a third, or let three men, one in each of these boxes, shovel this mortar twenty-one feet high, and see how much more easily they would accomplish it than to carry it by hods, for in the former case they have only the simple material to lift, and lift it very advantageously, while in the other case they are obliged to carry their bodies in addition every time they carry say fifty or eighty pounds of this material.

In the article already published it is stated that the main expense of the building was hauling sand; in my own case I have mainly overcome this difficulty by employing the materials dug out of my foundation in place of sand. Some of my neighbors facetiously called these piles of rubbish and slate intermixed with large stone and small, Fowler's brick. "Very well," I replied, "it makes a better wall than any other kind of brick, and at a tenth the cost. It looks rough now, but wait till my walls are finished, and you could not tell the difference between it and the best of brick in looks, and I will guarantee that it will be more solid."

In further aiding the reader to form an estimate of the labor required, I will add that five days' work put up a wall forty feet long, eight inches wide, and nine feet high, including the laying out of the wall, and the erection of the guides, and all but one fourth of a day of this work by hands employed at twelve dollars

per month; though it should be added that this was the wall torn down, moved a couple of feet so that the materials were handy, that is, these materials had only to be shoveled into a mortar-bed, some fresh lime added, and then shoveled back into the boxes.

(Valley Farmer.)

ARTICLE VII.

From Maj. Carleton's Journal of the Expedition to the Ruins of Abo, Quarra and Gran Quivira, N. Mexico.

TUESDAY, December 20, 1853.

As we knew it would be quite impossible to march to Gran Quivira and make the necessary observations there and back to the laguna in one day, it was decided to rest this forenoon, and to fill all the kegs and India rubber water tanks with water, and then to march to the ruins in the afternoon; to encamp near them to night, to employ the forenoon of to-morrow in their examination, and then to return to-morrow evening to this place. In this way our animals would not be without water more than a day and a half. We accordingly broke up our camp about half past twelve o'clock. After we had filled our kegs and tanks at the laguna, we ascended a high ridge for a mile or more, when our guide pointed out to us what he said was the great church, or cathedral, at Gran Quivira. It was an air line all of thirteen miles distant, and yet we could see it distinctly with the naked eye.

We could have seen it easily when five or six miles further off, had there been no obstruction to the view: a proof of the remarkable clearness of the atmosphere in this elevated region. It lies S. 5 deg. E. by the compass from Laguna de la Puerta, and served for a landmark towards which to direct our march. Our course was a very straight one; for the country, which is an open, rolling prairie, offered no impediment to our moving in a right line. The weather changed to be very cold during the afternoon, when near sunset a fierce wind arose from the direction of the snow-clad mountain in the west, and a cold vapor like a cloud came over the country, enveloping everything in a dense fog, and covering men and horses with a hoar-frost. It was feared that the gale would change into one of those dreadful winter northers which are sometimes experienced in this country, and which are so fatal to men and animals when exposed to their fury on the open prairie. So the direction of the march was changed that we might get the shelter of the timber of the slope of the Mesa de los Tumanes, which stretched along our right at a distance of not more than three or

four miles. This we struck very opportunely just as night was setting in. We soon had large fires blazing and all our horses well blanketed and picketed on the leeward side of them to get the benefit of the heated air and of the eddy in the wind from the long line of tents. In this way they were kept from suffering, although the night was uncommonly cold and inclement.

So, still another day has passed away, and the ruins not yet reached. Quivira would seem always to have been a difficult place to arrive at. We find in Castanada's history of the expedition into this country made by FRANCISCO VASQUES DE CORONADO, in 1540–'41 and '42, that that General was forty-eight days in hunting for it, starting from some point between the Rio Grande and the Gila river. All the way from Albuquerque we have asked the people of the country were the ruins were situated? how they looked? who built them? &c. To all these questions we could seldom get a more definite reply than *quien sabe?* It seemed as if the genii who, in the Eastern tale at least, are said to guard the depositories of great treasures, were determined to make the existence of such a place as Gran Quivira as much of a problem to us as to the Mexicans themselves. We had seen before the fog set in an edifice in the distance which had seemed to move away as we approached it like the weird lakes of water in a mirage. But tomorrow at all events will decide for us whether that edifice be a Fata Morgana, or not.

WEDNESDAY, Dec. 21, 1853.

At daybreak this morning, every tree and spire of grass, and even the blankets upon our horses, were covered with ice. The trees seemed as if every twig was made of frosted silver. The wind had gone down, and overhead the sky was clear; but a heavy bank of fog extended all along the east, obstructing our view of the Sierra de las Gallinas, which bounds the horizon in that direction. It was long ere the approaching sun waded up through so dense a veil.

Soon after we left camp we again saw the Cathedral of Gran Quivira; but in surmounting one eminence after another, as we mooved along over a rolling country, the ruins, phantom like, seemed to recede before us the same as on yesterday. When we first saw them this morning, they appeared to be about a mile and a half distant, when in reality they were more than five miles off.

The last three of these five miles travel was over nothing but a succession of sand hills covered with a tall coarse grass with two or three heads on each stalk, which seemed to be peculiar to this place. The horses sank more than fetlock deep into the soft, yielding sand, while it was with great difficulty that the mules, at a snail's pace, drew the wagons along.

At eleven o'clock in the forenoon we came to the last high ridge, on the point of which the ruins are situated. This ridge is com-

posed of dark blue, compact limestone, which crops out in several places along its slopes. The ascent is quite abrupt on every hand except towards the east; the ridge is prolonged in that direction for several miles. We all felt rejoiced that, finally, we had reached a place about which so much had been written and so little had really been known.

Whatever may have been the grandeur and magnificence of this place in ages long past, its present appearance and condition are easily described.

We found the ruins of Gran Quivira to consist of a large church, or cathedral, with a monastery attached to it; a small church or chapel, and the ruins of a town extending nine hundred feet in a direction east and west, and three hundred feet north and south. All these buildings had been constructed of the dark blue limestone which is found in the vicinity.

The cathedral which we had seen from Laguna de la Puerta, is one hundred and forty feet long outside, with the walls nearly six feet in thickness. It stands longitudinally W. 15 deg. S., with the great entrance in the eastern end. The altar was in the western end. Like the churches at Abo and Quarra, it is constructed in the form of the cross. From the doorway at the foot of the cross to the transept, it is eighty-four feet seven inches; across the tronsept it is twenty-one feet six inches; and from thence to the head of the cross it is twenty-two feet seven inches; making the total length, inside, one hundred and twenty eight feet eight inches. The width of the nave is twenty seven feet; the length inside of the short arm of the cross is thirty-six feet. A gallery extended along the body of the cathedral for the first twenty-four feet. Some of the beams which sustained it and the remains of two of the pillars that stood along under the end of it which was nearest to the altar, are still here; the beams in a tolerably good state of preservation; the pillars very much decayed. They are of pine wood, and very elaborately carved. There is also what perhaps might be termed an entablature supporting each side of the gallery and deeply embedded in the main wall of the church. This is twenty-four feet long by say eighteen inches or two feet in width. It is carved very beautifully indeed, and exhibits not only great skill in the use of various kinds of tools, but exquisite taste on the part of the workmen in the construction of the figures. These beams and entablatures would be an ornament to any edifice, even at the present day.

We have cut one of the beams into three parts to take back with us. The entablatures are so deeply set in the walls we are unable to procure a piece of them. The beams are square and are carved on three sides; the floor of the gallery rested on the fourth side.

The stone of which the cathedral was built was not hewn nor even rughly dressed, but the smoothest side of each piece was laid to the surface with great care. We saw no one piece in all the ruins

which was over a foot in length. The mortar was made from the ordinary soil found on the spot. It affords but a poor cement to resist the action of the elements and the ordinary ravages of time.

The walls of the cathedral are now about thirty feet in height. It was estimated from the great quantity of stones which have fallen down, forming a sort of talus both with the walls and outside of them, that originally this building was all of fifty feet in height. There is a small room to the right as you enter the cathedral, and another room which is very large and which communicates with the main body of the building by a door at the left of the transept. There was also communication between this large room and the monastery or system of cloisters, which are attached to the cathedral. The chapel is one hundred and thirty feet from the cathedral. This building is one hundred and eighteen feet long, outside, and thirty-two in width. Its walls are three feet eight inches in thickness. It is apparently in a better state of preservation than the cathedral, but yet none of the former wood work remains in it.

A short distance from the chapel there is an enclosure which we supposed was the ancient cemetery.

The remains of the town are but heaps of stones, with here and there some evidences of narrow streets running nearly east and west and north and south. Through these stones pieces of beams and sticks of wood are seen to project. These indicate by moss and otherwise, that they are of very great antiquity. They are bleached white by the weather and are deeply gnawed by the tooth of time.

We saw some deep pits which were circular and walled around like wells. We believed them to be the remains of cisterns: they were not deep enough for wells. Some have concluded they were *estuffas*. Two hundred and ninety feet north of the cathedral there are evident traces of an *estanque*. This, as well as the cisterns, was probably made to collect the rain water which ran from the different buildings.

Toward the east we saw a well defined road, which kept the ridge for a few hundred yards and then turned off toward the southeast, where all further vestiges of it are lost in the sand. Where it is the most plainly marked along the summit of the ridge some large cedar trees are growing directly in the middle of it. These trees look to be very old indeed.

In every direction about the ruins we found great quantities of broken pottery, many specimens of which we have collected to take to Albuquerque. Some of it is handsomely marked and well glazed. We also found several stones which were evidently once used as *matates*. These metates are in use to this day to rub boiled corn upon until it becomes a kind of dough suitable to be kneaded into cakes called *tortillas*. We have selected two which we shall take home with us. These proved to us that the ancient inhabitants of Gran Quivira knew the use of corn as an article of food.

There is no sign that the ground in the vicinity has ever been cultivated, and no mark whatever of irrigating ditches. Indeed, an acequia, or open aqueduct, could not, it is believed, have brought water to the Gran Quivira; for the point occupied by the town appears to be considerably higher than the surrounding country.

We were informed by men at Manzana who had been *pastores* in their youth, and had herded sheep in this region of country, that there is a fine, bold spring of water at the base of the Sierra de las Gallinas, about fifteen miles from the ruins; and that they had heard that water once ran in an aqueduct from that spring to the Gran Quivira. This could hardly have been possible unless the aqueduct was a closed pipe; because from appearances the country intervening between those two points is considerably lower than either of them.

We have no indications that there had ever been such an aqueduct, nor did we see any sign that wells had been digged in the neighborhood. From every feature of the country, both within and without the surrounding sand hills, we could but be lost in conjecture as to the method adopted by the inhabitants to obtain even water to drink, without taking into account any at all for purposes of irrigation, unless they were supplied by some spring or stream that has long since disappeared. The nearest point where water can always be obtained *now*, is the spring which the pastores spoke of as being at the base of the Sierra de las Gallinas, fifteen miles away. The Laguna de la Puerta is fourteen miles seven hundred and seventy-three yards from Gran Quivira in nearly a direct line; but this is said to become entirely dry in seasons of great drought.

As at Abo and Quarra, we were surprised at not finding in the cathedral and chapel some of the door ways and windows surmounted by an arch. Had they been so originally, these buildings would now be in a better state of preservation. The beams across windows and doors, in giving away to the weight above, as they became decayed, made a fair beginning towards letting down the whole superstructure.

Mr. Gregg, in speaking of the ancient ruins of New Mexico, says: "The most remarkable of these are *La Gran Quivira.* This appears to have been a considerable city, larger and richer by far than the capital of New Mexico has ever been. Many walls, particularly those of churches, still stand erect amid the desolation that surrounds them, as if their sacredness had been a shield against which Time dealt his blows in vain. The style of architecture is altogether superior to any thing at present to be found in New Mexico. What is more extraordinary still, is, that there is no water within less than some ten miles of the ruins; yet we find several stone cisterns, and remains of aqueducts, eight or ten miles in length, leading from the neighboring mountains, from whence water was no doubt conveyed. And as there seem to be no indications

whatever of the inhabitants having ever been engaged in agricultural pursuits, what could have induced the rearing of a city in such an arid, woodless plain as this, except the proximity of some valuable mine, it is difficult to imagine. From the peculiar character of the place, and the remains of cisterns still existing, the object of pursuit in this case would seem to have been a *placer*—a name applied to mines of gold dust intermingled with the earth. Other mines have no doubt been worked in the adjacent mountains, as many spacious pits are found, such as are usually dug in pursuit of ores of silver; and it is stated that in several places heaps of scoriae are found.

By some persons these ruins have been supposed to be the remains of an ancient Pueblo, or aboriginal city. This is not probable; for though the relics of aboriginal temples might possibly be mistaken for those of Catholic churches, yet it is not presumed that the Spanish coat-of-arms would be found sculptured and painted upon their facades, as is the case in more than one instance. The most rational accounts represent this to have been a wealthy Spanish city before the general massacre of 1680, in which calamity the inhabitants perished — all except one, as the story goes: and that their immense treasures were buried in the ruins. Some credulous adventurers have lately visited the spot in search of these long lost coffers, but as yet (1845) none have been found."

There is no indication that the escutcheon of Spain was ever sculptured or painted on any facade about the ruins; and the facts as regards the style of architecture and the remains of an aqueduct, do not, as is shown by this journal, agree with his statement. Mr. Gregg must have described the appearance of this place from what he heard about it; for on all those subjects of which he wrote from personal observation, he is most excellent authority.

Pedro de Castanada accompanied Francisco Vasquez de Coronado in his great expedition to the North in search of gold. He wrote a history of the campaign. General Vasquez de Coronada arrived in a country, which was called *Quivira*, in the month of June, 1542. If the present ruins of Gran Quivira are in a region identical with the Quivira then visited, it may be of interest to state what Castanada says of it and of its inhabitants:

"Up to that point the whole country is only one plain; at Quivira mountains begin to be perceived. From what was seen it appears to be a well peopled country. The plants and fruits greatly resemble those of Spain: plums, grapes, nuts, mulberries, rye, grass, oats, penneroyal, origanum, and flax, which the natives do not cultivate because they do not understand the use of it. Their manners and customs are the same as those of Tegas, and the villages resemble those of New Spain. The houses are round and have no walls; the stories are like lofts; the roofs are of straw. The inhabitants sleep under the roofs, and there they keep all they possess."

The manners and customs of the people of Tegas to which he likens those of the people of Quivira, are described as follows:

"These natives are called Querechos and Tegas. They live under tents of Buffalo skins tanned, and subsist by the chase of these animals. These Nomadic Indians are braver than those of the villages: they are taller and more inured to war. They have great troops of dogs which carry their baggage; they secure it on the backs of these animals by means of a girth and a little pack saddle. When the load becomes deranged, the dogs begin to bark to warn their master to adjust it. These Indians live on raw meat and drink blood; but they do not eat human flesh. Far from being evil they are very gentle, and very faithful in their friendship. They can make themselves very well understood by signs. They cut meat in very thin slices and dry it in the sun; they reduce it afterwards to a powder, to preserve it. A single handful thrown into a pot answers for a meal, for it expands greatly. They prepare it with the fat which they preserve when they kill a buffalo. They carry around the neck a great intestine filled with blood, which they drink when thirsty. If they open a buffalo, they squeeze the masticated grass which is found in the stomach, and drink the juice which runs out; they say that this is the whole substance of the belly. They open a buffalo at the back and divide it at the joints by means of a piece of pebble attached to the end of a stick with as much facility as if they used a knife of the best steel."

The present ruins are not the remains of the round houses with roofs of straw which CASTANADA describes as the dwellings of the inhabitants of Quivira, three hundred and twelve years ago, and if they had had in those days instruments to shape and carve those beautiful beams and pillars, and entablatures, they would hardly have used pebbles at the ends of sticks in cutting up the buffaloes which they had killed. Besides, the matates we have found are almost positive proof that the people who once resided here ate as food tortillas made of corn, while from CASTANADA'S account, one is obliged to believe that the inhabitants of the country which he calls Quivira, lived entirely upon the flesh of the buffalo, as the Camanches do at the present day.

CASTANADA says likewise, that "the Indians of the country had neither gold nor silver, and were not acquainted with the precious metals. The Cacique wore on his breast a plate of copper, which he held in the greatest esteem."

Many have supposed that the ancient Aztecs built the edifices Gran Quivira, Abo and Quarra during their migration from Aztlan towards Anahuac; that the ruins now found in the Navajo country, and the *Casas Grande*, which are still to be seen along the Gila river, were built by the same people, and at about the same period of time. Captain JOHNSTON, of the first dragoons, visited the ruins of the Gila river in November, 1846; from his description of one of the Casas Grande—the largest and best of any he saw—we can

discover no point of resemblance between it and these now before us. Captain JOHNSTON says: "After marching six miles, still passing plains which had once been occupied, we saw to our left the *Casa de Montezuma.* I rode to it, and found the remains of the walls of four buildings, and the piles of earth showing where many others had been. One of the buildings is still quite complete as a ruin. The others had all crumbled but a few pieces of low, broken wall. The large Casa was fifty feet by forty, and had been four stories high, but the floors and roof had long since been burnt out. The charred ends of the cedar joists were still in the wall. I examined them and found that they had not been cut with a steel instrument. The joists were round sticks. There were four entrances—north, south, east and west; the doors are about four feet by two. The rooms had the same arrangement on each story. There was no sign of a fire-place in the building. The lower story was filled with rubbish; and above, it was open to the sky. The walls were four feet thick at the bottom, and had a curved inclination toward the top. The house was built of a sort of white earth with pebbles, probably containing lime, which abounded on the ground adjacent—and the surface still remained firm, although it was evident they (the walls) had been exposed to great heat from the fire. Some of the rooms did not open to all the rest, but had a hole a foot in diameter to look through. In other places were smaller holes." CLAVIGERO, the historian, believes that this great movement of the Aztecs from the North towards the South commenced about the year of our Lord 1160, and that the Casas Grande were built by them at various halts which they made in their circuitous journey toward the Valley of Mexico. It has been shown that in 1542 there were no buildings of the size and character of the Casas Grande, or such as are found here now, in all the country called Quivira, which CASTANADA visited and described. So one must conclude that so far as the Aztecs were concerned, whatever they may have had to do with the building of the edifices either in the Navajo country or on the Gila, or those found 250 miles northwest of Chihuahua, they never planned or constructed these at Gran Quivira.

History represents that VASQUEZ DE CORONADA, finding no gold during his great expedition, returned to Mexico, where he fell into disgrace and died in obscurity.

The Spaniards did not return to colonize the province of New Mexico until the year 1581; and the country could not be considered as conquered until 1595. For eighty-five years after this the colony seems to have prospered and to have grown in power. Towns and villages were built, and valuable mines of gold and silver were found and worked with success. The Catholic clergy were aided in their efforts to convert the Indians to christianity by the government, at whose expense large churches were erected in different parts of the province of New Mexico, corresponding with the

missions which were built for the same purpose and at about the same period in the other provinces of Texas and California. It was during this time, doubtless, that the large edifices at Abo, Quarra and Gran Quivira were erected. It is more than probable that valuable mines of the precious metals were found in their vicinity, and worked under the direction of the Spaniards, by the Indians who had been subjugated; for there is every reason to believe that the mountains east of the Rio Grande are at this day rich in gold and silver.

It appears that during these eighty-five years the Spaniards treated the Indians with the most cruel oppression, until finally, the latter revolted against them. The night of the 13th of August, 1680, was the time set, throughout all New Mexico, when the Indians should rise and make an indiscriminate massacre of all the Spaniards in the country. This plot was made known to DON ANTONIO DE OTERMIN, then the governor and military commandant of the province, by two Indian chiefs. Every effort was made for defence and to avert the coming storm, but without success. The Indians rose as agreed upon, and after various conflicts, they destroyed great numbers of the inhabitants; and, finally, by the latter end of September of that year, succeeded in driving all the rest, with Governor OTERMIN included, to El Paso del Norte, entirely beyond the confines of the Territory.

We have been informed that there is now a tradition among the Indians, that as soon as their forefathers had become successful in expelling the Spaniards, they filled up and concealed all traces of the mines where they had toiled and suffered for so many years; declaring the penalty to be torture and death to any one who should again make known their locality.

Old Mr. CHAVIS, who overtook us soon after our arrival at Gran Quivira, informed Major CARLETON that he had been told when in his youth by very old people, that a tribe of Indians once lived here called the *Pueblos* of Quivira, that the Spanish priests came and lived among them in peace and security for twenty years; that during this period these large churches were erected, and that at the time of the great massacre, there were seventy priests and monks residing here, all of whom were butchered excepting two, who contrived to make their escape. That previous to their massacre the priests had had intimation of the approaching danger, and had not only buried the immense treasures which had been collected, but had concealed likewise the bells of the churches. That many years after the people of Quivira had died off until but few remained, that one of these, a descendant of the chief, knew where the treasures were buried; that the remnant of the tribe afterwards emigrated and joined other Pueblos below El Paso; and that many years ago an old man, one of the last of the tribe, had told in what direction from the church these great treasures had been concealed. So far as the building of the churches and the

massacre of the monks and priests are concerned in this account, as well as the final decrease and removal of the people who once lived here, there is no doubt but that the story told by Mr. CHARVIS is, in the main, correct. The account of the depositories of the bells and the treasure is said to have been written down as given from the lips of the last Cacique of the Quivira, who, at the time he made the disclosure, was living away below Mesilla on the Mexican side of the river. A copy of this paper has been secured and is here inserted in the original language, for the benefit of those who may take an interest in such matters:

"En el Semetario de la Parroquia grande en el ceretro del costado derecho segun la figiera namero una esta una eutrana escarbaudo esta dos campanas tomando la linea de la abertura que dejan los dos campanas se bera al oriente para el callijou que deja la eglesia vieja y el pueblo una lomita a distancia de tres cientas varas mas o menos que no hay otra que forme lienea con las campanas debajo de dicha loma hai un sotano de diez o mas varas retacado de piedras el cual tiene el gran tesoro.

Nembrado por Carlos quinto de la Gran Quivira."*

In the cemetery of the great church, according to figure number one, there is a pit, and by digging will be found two bells. By taking a narrow street, leading in an easterly direction from the old church and the town will be seen a hill, at the distance of three hundred varas, more or less, and there is no other which forms a line with the bells. On the side of said hill there is a pavement of ten yards or more, beneath which is the great treasure.

The grammar of this document is preserved as in the original. There can be no doubt but the belief that a large amount of gold and silver has been buried there, has for a number of years been seriously entertained. We find in the cathedral, and in the chapel, in every room in the monastery, in every mound of stones in the neighborhood, and in every direction about the ruins, large holes dug, in many places to the depth of ten feet, by those who have come from time to time to seek for these hidden treasures. Some of these holes look as if they were made more than a century ago, while others appear to be quite recent. Even the ashes of the dead have not been left undisturbed during these explorations. Near the east end of the chapel we saw where the people who had been digging had thrown up a great many human bones, which now lie scattered about. From these we have selected six skulls to send to some one who is skilled in the science of craniology, that he may determine, if possible, to what race of people they once belonged. These skulls are thought to be unusually large.

The Ruins of Gran Quivira have hitherto occupied the same position to the boundless prairies which the fabulous Island of Atlantis did to the ocean in days of antiquity. No one seemed to know

* Mentioned by Charles V., of Grand Quivira.

exactly where this city was situated. But the uncertainty of its locality seemed to make no difference in regard to the interest that was felt concerning it; for people would believe in its existence, and receive great pleasure in listening to traditions about its marvelous beauty and magnificence, even when to a reasonable mind those traditions ran counter to probability.

Men of genius and distinction have taken great pains in following up mazes in the labyrinth of reports concerning it, whether oral or written, and in their glowing descriptions it has appeared almost like a city of enchantment. To them it had paved streets, and fluted columns, and ornate firiezes, and sculptured facades; it had the remains of aqueducts and fountains; it had long colonades and even barbaric statuary. It had the groined arch, the shouldering buttress, the quaint gargoyle; and everything in outline and in detail that could betoken skill, and taste, and opulence. It was a city they say whose inhabitants departed from it so long back in the gloom and mists of the past as to leave in utter obscurity all other records concerning them.

The Sphynx, they said, about whose bosom the sands from the Lybean desert had drifted for unknown centuries, was no more of an enigma than this was. Here were palaces, and temples, and deserted courts, and long echoing corridors, and desolate streets; and reigning over all a silence so profound as almost to be heard.

Historical Societies had taken up these descriptions, and filed them away amongst their transactions as documents of deep interest. Venerable and learned ethnologists searched in dusty manuscripts and black-latter volumes of antiquity for some authentic account of that race of men who reared and then abandoned such a city. But to this moment their researches have proved fruitless, and the story they seek is still recorded in an unsealed book!

Our business is not that which will permit us to clothe with imaginary grandeur these vesteges of a people whose name has been erased from the book of nations; nor that which will allow us time to indulge in abtruse speculations as to their race or their language. These things belong to the poet and philosopher. With all those pleasant reveries and romantic fancies which these ruins away here on a desert are so wonderfully calculated to awaken, we can have nothing to do. We came here to note realities; and now the facts we have seen, the theories we have read, which were of value, the traditions we have heard deserving of attention, and the conclusions to which we have come concerning this interesting place, are all written down. All else save the things we saw admits of doubt, and is obscured by so dark a cloud of uncertainty, as to leave much ground for new theories, and for, perhaps, infinitely more valuable conclusions.

From Gran Quivira the Northern point of the Sierra Blanca bears by the compass, S. 30 deg. E., and is distant about fifty

miles. The highest point of Sierra de la Gallinas bears E. 5 deg. N., and is distant about fifteen miles. The peaks known Las Tetillas bear N. 36 deg. W., and are distant about fifty-five miles.

JAMES HENRY CARLETON,
Brev. Major U. S. A. Com'g. Column.

ARTICLE VIII.

(From the United States Mining Journal.)

The Chemistry of Common Life.*

The common life of man is full of wonders, chemical and physiological. The manner and means of our existence, every necessary we consume, every material comfort we enjoy, all the parts and functions of the bodily organs through which we enjoy them, —everything, in short, which concerns our daily individual life, abounds in admirable marvels, which chemistry and chemical physiology disclose. Dr. Johnston has described and discussed these subjects, at once so familiar and so obscure, so universally felt, and so imperfectly understood, in one of the most agreeable and instructive publications of the present day. We shall follow him rapidly through the general divisions of his subjects, and terminate our observations by some of the examples which the Doctor draws from the habits and wants of our daily lives.

If we begin, for example, with that universal air which floats around us, which expands our lungs and permeates every tissue of our bodies—modern chemistry informs us that, though considered simple and elementary by the ancients, this air is a mixture of at least three elastic fluids, equally subtile and invisible, and equally essential to the purposes which the atmosphere is intended to serve. These are the now well-known gases, nitrogen, oxygen and carbonic acid. In the first, flame dies, and no life can persist; in the second, bodies burn and animals live with great intensity; in the third, both life and flame are extinguished. Though so different in their properties when taken singly, the admixture of them, which forms our atmosphere, is adjusted, in kind and in relative portions of each, to the condition of things both living and dead, which now obtains on the surface of the earth.

Did the air consist of nitrogen only, the sun's rays would be the sole source of heat wherever the atmosphere extended, and no ex-

* From the Edinburgh Review, April, 1855: Art VII. By James F. W. Johnston, M. D., F. R. S. L. & E. Reader in Chemistry and Mineralogy in the University of Durham, 2 vols. post 8vo. Backwood: 1855.

isting plant or animal could flourish on the globe. Were it formed of oxygen only, fire once kindled, would refuse to be extinguished, and conflagration would spread, till everything combustible in the earth was consumed. Did it consist of carbonic acid only, death and comparative stillness would reign everywhere, and the production of light and heat such as we can now command, would be utterly impossible. But the happy mixture of the three gases which now prevails, renders everything possible. Under their united influence the rocks crumble to form a fertile soil, plants flourish to cover it with verdure, animals live to adorn and enjoy it, and light and heat are awakened or extinguished at will. The inactive nitrogen dilutes the too energetic oxygen, so as to make animal life longer, and to subject living fire to human control; while the poisonous carbonic acid is rendered harmless to animal life by the very small proportion in which it is mixed with the other airs.

One of the most admirable, indeed, of nature's wonders in the material world, is the purpose served by this carbonic acid gas. Itself poisonous in a high degree, it can be breathed by man with impunity only in very minute quantity; that is, in an extreme state of dilution. Hence, the atmosphere in which man lives contains only one gallon of this gas in every 2,500. And so small is this quantity, that the weight of carbon in this form which the whole atmosphere contains, amounts only to thirty-three grains out of the fifteen pounds of air which press upon every square inch. Yet by this comparatively minute quantity all vegetable life is nourished and sustained.

Look out in the coming spring time at the bursting bud. Watch how beneath the mid-day sun, the tiny leaflet spreads out its yellow surface to the favoring rays. See how from day to day its hue becomes greener, and its several parts increase in size. This growth will continue till closing summer finds the little bud changed into a magnificent plant, clad with copious leaves, and successively blooming with gay flowers, or borne down by a burden of tempting fruit. Autumn will succeed, to stop the growth and give a new color to its leaves; and chill winter will strip it of all its leafy pride, and leave it naked as when spring time began.

Such is the yearly plant-life, as seen by the ordinary cultivator, or watched with daily care by the lover of vegetable nature. But, beneath this outer open life, there is an inner secret life which the common eye does not see. A constant invisible intercourse has all the time been taking place between the external air and the most hidden parts of the internal plant. No sooner does the little leaf burst the swelling bud, than a thousand unseen mouths open on its surface to suck in the airy food which now for the first time comes within their reach. These minute mouths (*stomata*) are scattered in millions over the leaf, now on its upper, now on its under side, and now on both, — according to the circumstances in which the plant is destined to live. Beginning with the first dawn of sunlight,

they perpetually suck in carbonic acid from the atmosphere, and give off oxygen gas in nearly equal volume till the sun goes down. Then, with a view to other chemical ends, and, obedient to the retiring sun, they change the nature of their work. While darkness lasts, they take back carbonic acid from the air, and give out again pure oxygen gas. And thus, day after day, the leafy labor proceeds, and by the aid of the raw materials which the working mouths thus incessantly carry out and in, other vital parts within the plant produce the varied forms of matter of which the vegetable substance consists. The solid stem is formed, as it were, of compressed and hardened air; and vast forests on a thousand hills thus steal from the atmosphere the carbonaceous matter of which they mainly consist.

But a marvel of wondrous forethought discloses itself as we interrogate more nearly this mutual relation between terrestrial plant-life and the air which surrounds it. The quantity of carbon in the air, as we have seen, is small; some thirty odd grains over every square inch. The active growth of vegetable matter over the entire surface of the globe, is able to convert the whole of this carbon into the substance of solid wood within the lifetime of a single generation of men. But hundreds of generations of men have already lived on the earth, and thousands of generations of other animals before him, yet carbon is as abundant in the atmosphere as ever, and vegetable growth, in similar circumstances, quite as luxuriant. There must, therefore, be some natural sources of supply from which carbonic acid gas flows into the air, as fast as the leafy mouths withdraw it. These sources, also, must be watched and regulated, that they may not pour it in so fast as to increase unduly the natural proportion of this poisonous gas in an atmosphere which man and countless other animals perpetually breathe. These several conditions are beutifully fulfilled by a series of compensating natural operations, which, like the growth of plants, form a part of the existing system of things; and, like it, never cease to proceed at a duly measured pace.

Thus, plants die, and the carbon of their stems and leaves is gradually resolved again into carbonic acid by the gradual progress of decay, or by the quicker agency of fire. Or the plant is eaten by the living animal, and after many chemical dhanges within the animal's body, its carbon is breathed forth again from the lungs and skin in the form of carbonic acid. In these several ways the very same carbon which the plantsleaf has taken from the air, is again, in a great measure, returned to it. A certain small and indefinite proportion of their carbon is indeed yearly buried in the soil, or covered up in the depths of the sea, or accumulated in bogs or dismal swamps. But to make up for this, the earth itself, from bubbling springs, from myriads of unseen fissures, and from the open mouths of many volcanoes pours forth a ceaseless contribution of carbonic acid gas—ceaseless, yet in such wise limited, that

so long as vegetation lasts, it cannot render the atmosphere unwholesome to animal life. To the knowledge of these and many similar adjustments, the study of the chemistry of the air we breathe, has gradually led us.

Turn now to the water we drink. In this admirable fluid, so clear, so bright, so grateful to the system, so healthful to the temperate, so necessary to all: the delight of Grecian song, the charm of the Eastern paradise, of this fluid,—lauded with justice by the physiologist, and worshipped, not unduly, by the total abstainer—chemistry tells us that three-fourths of our apparently solid bodies consist, and that it forms nearly as large a proportion of all living vegetables during the height and vigor of their growth. In this fluid, looked upon as elementary till nearly our own times, modern search has taught us to see the result of a subtle union between the oxygen we have spoken of, and another gas, to which the name of hydrogen (water-former,) has been given. Kindle this latter gas in the air, and it burns with a pale flame. Hold a cold bell glass over the flame, and its under surface will become bedewed with moisture, and drops of water will trickle down its sides. Collect this water and submit it to a current of electricity; the liquid will disappear, and in its stead the two gases oxygen and hydrogen will remain. These experiments prove, *first*, that while burning in the air, the hydrogen unites with the oxygen of the atmosphere, and forms water; and *second*, that the water thus formed consists of these two gaseous constituents only, compressed and bound together by some incomprehensible connexion, which it makes us no wiser to call chemical combination.

It is, indeed, incomprehensible how water, the enemy of fire, should itself consist of two gases, the one of which burns most readily, while the other is the great natural supporter of living fire. And it is equally strange that oxygen, so indispensable to animal life, should form eight-ninths by weight of a liquid in which few terrestrial animals can live for more than two or three seconds of time. By no known theory of physical or mechanical union can we satisfactorily explain how properties so new should be the result of such chemical combinations.

The chemical study of this water in its relations to animal and vegetable life presents new points of interest. The most important of its chemical properties are so familiar to us that we rarely think of them, and certainly do not sufficiently prize them. Pure water has neither taste, nor smell, nor pungency. It is neither sour like vinegar, nor sweet like sugar, nor alkaline like soda. It irritates no nerve of sensation, even the most delicate, nor is the tenderest part of the animal frame disturbed by contact with this universal fluid. It is thus fitted to penetrate unfelt into the subtlest tissues, and without causing the slightest jar to flow along the finest, most sensitive, and most hair-like vessels. It soothes and assuages wherever it comes, lessening inflammation, lulling pain, diluting

unhealthy fluids within the body, and washing morbid humors and waste materials from the sickly and changing frame.

Again, as a cooling agent water is equally invaluable. In a dry and a thirsty land we feel and acknowledge the pleasure of bathing our heated body in the sea or the running stream. But we are less sensible how it watches over us, as it were, every passing moment, dispelling its rising heat, and removing from the body every excess of warmth which might disturb the equable working of its many parts. Do we eat inflammatory food, or drink overstimulating fluids, the excess of bodily warmth produced converts a portion of water into vapor, and the lungs throw it off into the air. Do we by hard labor, or other unusual exertion, exalt the temperature of the body, the same water again takes up the superfluous heat, and bathing with perspiration both skin and lungs, restrains within due bounds the growing inflammation.

But more widely useful still in relation to vegetable and animal life is the property which water possesses of dissolving and rendering fluid a host of usually solid bodies. Put sugar or salt into water, it disappears and becomes fluid and penetrative like the water itself. The salt sea contains within its bosom many substances so dissolved; the fluids that circulate through our veins are chiefly water holding various compound bodies in solution; the moisture which the plant-root drinks in carries with it into root, stem, and leaf many substances it has taken up from the soil; and the purest waters we consume for domestic use are not free from foreign matters of mineral and organic origin. In all this there is a purpose, and good flows to all living things from this solvent power of water.

It must suffice at present to mention one general benefit. Into the composition of the plant a variety of solid mineral substances enter, which it is the duty of the plant root to draw from the soil. In their solid form these substances could neither move freely through the soil nor find their way into the fine pores of the little rootlets. But dissolved in water, they move as freely as the liquid itself, and penetrate with it into the most delicate tissues of plant or animal. Thus along the finest vessels they ascend through stem, and twig, and leaf, and distribute themselves wherever their presence is required.

It is so also with the animal. Into all its parts solid saline and mineral matters enter as a necessary portion of their substance. These we introduce into the stomach along with our other food, but water must dissolve them there and make them fluid before they can find their way into the blood and be afterwards conveyed to the parts of the body, where their several services are required. And here comes into view a glimpse of wise beneficence in what at first sight appears only a form of material evil. The impurities, as we call them, of natural waters are often of real advantage to those who drink them, supplying saline and mineral matters in

which the food is deficient, or which the peculiar nature of the staple form of diet in a given region renders grateful to the enfeebled frame. The purest waters, therefore, are by no means to be considered as everywhere and in all cases the most wholesome. The natural waters of every locality are more or less medicated, so to speak, and the constitutions of the inhabitants by long use become adapted to their peculiar quality, and even their food is adjusted to it; so that to change their wonted beverage even for one more pure may sensibly affect the health for years to come, of large masses of people.

[To be continued.]

ARTICLE VIII.

My Own Times.

From a forthcoming work from the pen of Ex-Gov. REYNOLDS.*

CHAPTER XI.—*Fort Jefferson—Its History—Sketch of Capt. Piggot's Life—Sickness of the Garrison—Indian Assaults—Heroic Defence—Abandonment of the Fort—Piggot's Fort—The Ferry opposite St. Louis, Mo.*

Although Fort Jefferson was established before MY OWN TIMES, yet so many incidents arising out of the establishment of this fort, extending into MY OWN TIMES, and so many of the pioneers of Illinois being connected with it, that I deem it proper, in the scope of my work, to give some sketches of the history of the fort.

In 1781, the Government of Virginia, the great statesman, Thomas Jefferson, being Governor, knew that the Spanish Crown pretended to have some claim on the country east of the Mississippi, below the mouth of the Ohio; and to counteract this claim, ordered George Rogers Clark to erect a fort on the east side of the Mississippi, on the first eligible point below the mouth of the Ohio.

General Clark, with his accustomed foresight and extraordinary energy, levied a considerable number of citizen soldiers, and proceeded from Kaskaskia to the high land, known at this day as Mayfield's creek, five miles below the mouth of the Ohio. Here, on the east side of the Mississippi, he erected a fort, and called it

* We are indebted to the politeness of the author for the following chapter in advance of the publication of his work entitled "MY OWN TIMES," now in press. In undertaking to perpetuate the names and deeds of the heroic pioneers of the West, the author has entitled himself to the gratitude not only of their descendants but of the country at large. His is the labor of the *philanthropist* seeking to collect and treasure up every good and noble action for future example and instruction. And for his encouragement we may be allowed to say that to all who thus labor there is a sure reward.—SEN. ED.

Jefferson, in honor of the then Governor of Virginia. It was neglected to obtain the consent of the Indians for the erection of the fort, as the Governor of Virginia had requested. This neglect proved to be a great calamity. Clark encouraged immigration to the fort, and promised the settlers lands. Capt. Piggot and many others followed his standard.

The fort being established, Gen. Clark was called away to the frontiers of Kentucky, and left the fort for its protection in the hands of Capt. James Piggot, and the soldiers and citizens under him.

Capt. Piggot was a native of Connecticut, and was engaged in the privateering service in the Revolutionary war. He was in danger of assassination by the enemy in his native State, and emigrated to Westmoreland county, Pa. He was appointed Captain of a company in the Revolution by the Legislature of his adopted State, and served under Generals St. Clair and Washington. He was in the battles of Brandywine, Saratoga, and marched to Canada. By severe marches and hard service, his health was impaired so that he was forced to resign his captaincy, and with his family, he left his residence in Westmoreland county, and came west with Gen. Clark.

Several families settled in the vicinity of Fort Jefferson, and some in it; but all attempted to cultivate the soil to some extent for a living.

The Chickasaw and Chocktaw Indians became angry for the encroachments of the whites, and in August, 1781, commenced an attack on the settlements around the fort. The whole number of warriors must have been ten or twelve hundred, headed by the celebrated Scotchman Colbert, whose posterity figured as half-breeds. These tribes commenced hostilities on the settlements around Fort Jefferson. The Indians came first in small parties, which saved many of the inhabitants. If they had reached the settlement in a body, the whole white population outside of the fort would have been destroyed.

As soon as the preparation for the attack of the Indians on the fort was certainly known, a trusty messenger was dispatched to the Falls of the Ohio, as it was called at that day, and for years afterwards, for more provisions and ammunition. If support did not arrive in time, the small settlements and garrison would be destroyed, and it was extremely uncertain if succur would reach the fort in time.

The settlement and fort were in the greatest distress; almost starving, no ammunition, and such great distance from the settlements at Kaskaskia and the Falls.

The first parties of Indians killed many of the inhabitants before they could be moved to the fort, and there were great danger and distress in marching them into the fort. Also the sickness prevailed to such extent, that more than half were down sick at the

time. The famine was so distressing, that it was said they had to eat the pumpkins as soon as the blossoms fell off the vines. This Indian marauding and murdering private persons, and families, lasted almost two weeks before the main army of Indian warriors reached the fort. The soldiers aided and received in the fort all the white population that could be moved.

The whole family of Mr. Music, except himself, was killed and inhumanly butchered by the enemy. Many other persons were also killed.

In the skirmishes a white man was taken prisoner, who was compelled, to save his life, to report *the true state of the garrison.* This information added fury to the already heated passions of the savages.

After the arrival of the warriors, with Colbert at their head, they besieged the fort for six days and nights. During this time no one can describe the misery and distress the garrison was doomed to suffer. The water had almost given out. The river was falling fast, and the water in the wells sunk with the river. Scarcely any provisions remained, and the sickness raged so in the fort, that many could not be stirred from the beds. The wife of Capt. Piggot, and some others, died in the fort, and were buried inside of the walls, while the Indians besieged the outside. If no relief came, the garrison would inevitably fall into the hands of the Indians and be murdered.

It was argued by the Indians with the white prisoner, that if he told the truth, they would spare his life. He told them truly that more than half in the fort were sick—that each man had not more than three rounds of ammunition, and that scarcely any provisions were in the garrison. On receiving this information, the whole Indian army retired about two miles, to hold a council. They sent back Colbert and three chiefs with a flag of truce to the fort.

When the whites discovered the white flag, they sent out Capt. Piggot, Mr. Owens, and one other man, to meet the Indian delegation. This was done for fear the enemy would know the desperate condition of the fort. The parley was conducted under the range of the guns of the garrison.

Colbert informed them that they were sent to demand a rurrender of the fort at discretion; that they knew the defenceless condition of the fort, and to surrender it might save much bloodshed. He further said: that they had sent a great force of warriors up the river to intercept the succur for which the whites had sent a messenger. This the prisoner had told them. Colbert promised he would do his best to save the lives of the prisoners, all if they would surrender, except a few, whom the Indians had determined to kill. He said, the Indians are pressing for the spoils, and would not wait long. He gave the garrison one hour for a decision.

On receiving this information, the garrison had an awful and gloomy scene presented to them. One person exclaimed: "*Great God direct us what to do in this awful crisis !*"

After mature deliberation, Piggot, and the other delegates were instructed to say, that nothing would be said, as to the information received from the prisoner. If we deny his statements, you may kill him—we cannot confide in your promises to protect us; but we will promise, if the Indians will leave the country, the garrison will abandon the fort and the country as soon as possible. Colbert agreed to submit this proposition in council to the warriors. But on retiring, Mr. Music, whose family was murdered, and another man, shot at Colbert, and a ball wounded him. This outrage was greatly condemned by the garrison, and the two transgressors were taken into custody. The wound of Colbert was dressed, and he guarded safely to the Indians.

The warriors remained long in council, and by a kind providential act, the long wished for succors did arrive in safety from the "Falls."

The Indians had struck the river too high up, and thereby the boat with the supplies escaped. The provisions and men were hurried into the fort, and preparations were made to resist a night attack by the warriors.

Every preparation that could be made for the defence of the fort was accomplished. The sick and small children were placed out of the way of the combatants, and all the women and children of any size were instructed in the art of defence. The warriors, shortly after dark, thought they could steal on the fort and capture it; but when they were frustrated, they with hideous yells and loud savage demonstrations, assaulted the garrison, and attempted to storm it. The cannon had been placed in proper position to rake the walls, and when the warriors mounted the ramparts, the cannon swept them off in heaps. The enemy kept up a stream of fire from their rifles on the garrison, which did not much execution. In this manner, the battle aged for hours; but at last the enemy were forced to recoil, and withdrew from the deadly cannon of the fort. Colbert and other chiefs again urged the warriors to the charge; but the same result to retire was forced on them again. Men and women at that day were soldiers by instinct. It seemed they could be not otherwise.

The greatest danger was for fear the fort would be set on fire. A large dauntless Indian, painted for the occasion, by some means, got on the top of one of the block houses, and was applying fire to the roof. A white soldier, of equal courage, went out of the block house and shot the Indian, as he was blowing the fire to the building. The Indian fell dead on the outside of the fort and was packed off by his comrades.

After a long and arduous battle, the Indians withdrew from the fort. They were satisfied; the Indians had arrived in the garrison,

and they could not storm it. They packed off all the dead and wounded. Many were killed and wounded of the Indians, as much blood was discovered in the morning around the fort. Several of the whites were also wounded, but none mortally. This was one of the most desperate assaults made by the Indians in the West, on a garrison so weak and distressed and defenceless.

The whites were rejoiced at their success, and made preparations to abandon the premises with all convenient speed.

The citizen soldiers at Fort Jefferson all abandoned the fort; and some wended their way to Kaskaskia, and others to the Falls. Capt. Piggot, with many of his brave companions, arrived at Kaskaskia, and remained there some years.

This flood of brave and energetic immigrants, so early as the year 1781, was the first considerable acquisition of American population Illinois received. Many of the most worthy and respectable families of Illinois can trace back their lineage to this illustrious and noble ancestry, and can say with pride and honor, that my forefathers fought in the Revolution to conquer the Valley of the Mississippi.

About the year 1783, Capt. Piggot established a Fort not far from the bluff in the American Bottom, west of the present town of Columbia, in Monroe county, which was called Piggot's Fort, or the Fort of the *grand kisseau.* This was the largest fortification erected by the Americans in Illinois, and at that day was well defended with cannon and small arms. In 1790, Capt. Piggot and forty-five other inhabitants at this Fort, sometimes called the BIG RUN in English, signed a petition to Governor St. Clair, praying for grants of land to the settlers. It is stated in that petition: that there were seventeen families in the Fort.

I presume it was on this petition that the Act of Congress was passed granting to every settler on the public land in Illinois four hundred acres, and a militia donation of a hundred acres to each man enrolled in the militia service of that year.

Governor St. Clair knew the character of Capt. Piggot in the army of the Revolution, and appointed him the presiding Judge of the Court of St. Clair county.

Capt. Piggot, in the year 1795, established the first ferry across the Mississippi, opposite St Louis, Mo., known now as Wiggin's Ferry; and Governor Tradeau, of Louisiana, gave him license for a ferry and to land on the west bank of the river in St. Louis, with the privilege to collect the ferriage. He died at the ferry, opposite St. Louis, in the year 1799, after having spent an active and eventful life in the Revolution, and in the conquest and the early settlement of the West.

COMMERCIAL

Commerce of the

Statement exhibiting the commerce of each State and

States.	Value of Exports. Domestic Produce. In American vessels.	In foreign vessels.	Total.
Maine	$1,851,852	$78,179	$1,930,031
New Hampshire	.....	913	913
Vermont	310,078	.....	310,078
Massachusetts	9,916,532	7,979,206	17,895,738
Rhode Island	422,642	3,404	426,046
Connecticut	720,925	382	721,307
New York	77,504,476	28,047,264	105,551,740
New Jersey	.....	2,225	2,225
Pennsylvania	7,739,874	2,106,936	9,846,810
Delaware	80,920	.....	80,920
Maryland	8,118,046	3,537,204	11,655,250
District of Columbia	37,992	.....	37,992
Virginia	3,096,601	1,655,617	4,752,218
North Carolina	271,463	120,434	391,897
South Carolina	7,780,928	4,201,380	11,982,308
Georgia	2,286,869	2,520,806	4,807,675
Florida	3,057,856	906,841	3,964,697
Alabama	7,255,550	6,656,062	13,911,612
Louisiana	43,428,747	17,227,840	60,656,587
Mississippi	.....	.....	.....
Tennessee	.....	.....	.....
Missouri	.....	.....	.....
Ohio	442,518	300,486	743,004
Kentucky	.....	.....	.....
Michigan	225,455	179,726	405,181
Illinois	254,793	42,253	297,046
Texas	504,036	258,412	762,448
California	720,342	120,570	840,912
Oregon	41,314	1,393	42,707
Wisconsin	30,464	.....	30,464
Minnesota	.....	.....	.....
Califor. not red'd in time	.....	.....	1,343,064
	176,100,273	75,947,533	253,390,870

DEPARTMENT.

United States.

Territory, from July 1st, 1853, to June 30th, 1854.

	VALUE OF IMPORTS.		
Total American and foreign produce.	In American vessels.	In foreign vessels.	Total.
$2,589,041	$1,038,857	$1,323,043	$2,361,900
1,031	27,257	7,248	34,505
1,445,244	337,279	.....	337,279
21,438,504	30,141,034	18,422,754	48,563,788
439,981	308,755	129,217	437,972
739,575	546,970	16,007	562,977
122,534,646	145,750,943	49,676,990	195,427,933
2,225	685	3,286	3,971
10,104,416	12,991,511	8,367,795	21,359,306
80,920	.....	.....	.....
11,782,632	6,031,192	756,360	6,787,552
37,992	48,108	.....	48,108
4,754,148	722,129	554,087	1,276,216
391,897	214,860	97,773	312,633
11,995,016	1,392,953	318,432	1,711,385
4,808,375	183,996	152,955	336,951
3,964,697	16,522	12,447	28,969
13,911,612	137,828	587,782	725,610
60,931,852	12,454,089	1,968,065	14,422,154
.....	11,386	.....	11,386
.....	.....	.....	.....
.....	.....	.....	.....
744,584	556,974	233,108	790,082
.....	.....	.....	.....
434,495	204,286	.....	204,286
297,046	71,421	7,329	79,344
1,314,449	125,480	105,943	231,423
978,651	2,015,377	3,324,037	5,339,414
42,827	.....	48,932	48,932
30,464	45,641	3,533	49,174
.....	740	104	844
.....	.....	.....	3,068,287
275,796,320	215,376,273	86,117,821	304,562,381

Statement of the Commerce of each State and Territory.

[Continued.]

STATES.	TONNAGE ENTERED INTO THE UNITED STATES			
	American.		Foreign.	
	Number.	Tons.	Number.	Tons.
Maine	424	115,819	760	63,100
New Hampshire	8	1,327	31	2,550
Vermont	442	31,215	204	13,533
Massachusetts	1,410	419,974	2,691	379,976
Rhode Island	102	18,960	61	9,580
Connecticut	107	24,862	46	8,356
New York	4,359	2,148,846	4,114	1,039,508
New Jerey	4	452	24	2,851
Pennsylvania	453	143,836	131	50,503
Delaware	.....	.....	.....	.....
Maryland	347	111,404	150	45,044
District of Columbia	6	1,943	.....	.....
Virginia	138	68,259	103	28,484
North Carolina	96	13,588	20	3,701
South Carolina	143	55,813	127	34,890
Georgia	40	11,463	83	44,147
Florida	68	23,486	25	7,564
Alabama	46	28,450	87	57,871
Louisiana	653	342,763	350	156,464
Mississippi	.....	.....	.....	.....
Tennessee	.....	.....	.....	.....
Missouri	.....	.....	.....	.....
Ohio	378	53,185	153	19,427
Kentucky	.....	.....	.....	.....
Michigan	24	6,068	199	61,481
Illinois	19	6,236	3	703
Texas	4	824	14	4,425
California	184	123,351	271	97,835
Oregon	.....	.....	1	231
Total	9,455	3,752,115	9,648	2,132,224

☞ Crews on American vessels: men 135,927; boys, 726. Crews on Foreign vessels: men 100,243; boys 1,212.

Statement exhibiting a condensed view of the tonnage of the several districts of the United States, on the 30th of June, 1854.

Districts.	Registered tonnage.	Enrolled and licen'd tonnage.	Total tonnage of each district.
	Tons.		
Passamaquoddy ...Maine.....	13,289	17,394	30,683
Machias .....do.....	4,356	23,329	27,685
Frenchman's Bay....do.....	3,890	39,979	41,869
Penobscot.....do.....	4,884	40,107	44,991
Belfast .....do.....	17,504	38,394	55,899
Bangor.....do.....	15,687	23,751	39,438
Waldoborough.....do.....	53,824	68,910	122,735
Wiscasset.....do.....	6,063	73,628	19,692
Bath .....do.....	124,922	29,578	154,501
Portland.....do.....	90,234	33,438	123,672
Saco .....do.....	2,531	2,461	4,993
Kennebunk.....do.....	14,695	3,405	18,100
York .....do.....	.....	1,835	1,835
Portsmouth ....New Hampshire	19,917	8,920	28,838
Burlington.....Vermont.....	.....	7,374	7,374
Newburyport..Massachusetts...	27,986	9,814	37,810
Ipswich .....do.....	.....	265	265
Gloucester .....do.....	2,805	29,764	32,570
Salem.....do.....	20,300	10,228	30,528
Beverly.....do.....	.....	4,035	4,035
Marblehead .....do.....	.....	6,467	6,467
Boston.....do.....	437,323	58,555	495,879
Plymouth .....do.....	2,210	8,399	10,609
Fall River.....do.....	3,951	13,405	17,357
New Bedford .....do.....	156,568	9,342	165,910
Barnstable .....do.....	7,514	74,442	81,957
Edgartown .....do.....	5,725	2,245	7,971
Nantucket.....do.....	22,335	2,374	24,710
Providence.....Rhode Island.	10,254	9,151	19,405
Bristol .....do.....	12,642	1,960	14,603
Newport.....do.....	7,462	4,439	11,902
Middletown .....Connecticut...	794	15,366	16,161
New London.....do.....	25,324	17,095	42,419
Stonington.....do.....	14,109	9,972	24,081
New Haven .. ..do.....	7,220	13,125	20,346
Fairfield.....do.....	2,118	24,192	26,310
Champlain .....New York.....	.....	1,342	1,342
Sackett's Harbor.....do.....	.....	7,570	7,570
Oswego .....do.....	.....	24,365	24,365
Niagara .....do.....	.....	868	868
Genessee .....do.....	.....	.....	.....
Oswegatchie .....do.....	.....	3,749	3,749

Statement of the tonnage of the several districts, &c.—Continued.

Districts.	Registered tonnage.	Enrolled and licensed ton.	Total tonnage of each dis.
	Tons.		
Buffalo Creek.....New York...	.....	82,678	82,678
Sag Harbor.....do.....	8,713	4,288	13,002
Greenport .....do.....	3,812	6,442	10,254
New York .....do.....	754,490	508,307	1,262,798
Cape Vincent.....do.....	.....	4,801	4,801
Cold Spring .....do.....	2,924	675	3,599
Perth Amboy ....New Jersey...	.....	20,229	20,229
Bridgeton .....do.....	.....	18,622	18,622
Burlington .....do.....	.....	13,219	13,219
Camden .....do.....	.....	17,975	17,975
Newark.....do.....	.....	8,614	8,614
Little Egg Harbor...do	.....	9,745	9,745
Great Egg Harbor...do.....	.....	17,541	17,541
Philadelphia .....Pennsylvania	74,951	193,794	268,764
Presque Isle .....do.....	....	8,210	8,210
Pittsburg.....do.....	.....	84,870	84,870
Wilmington.....Delaware.....	845	13,428	14,274
Newcastle.....do.....	.....	4,280	4,280
Baltimore.....Maryland.....	102,147	68,688	170,835
Oxford.....do.....	133	12,452	12,585
Vienna.....do.....	1,690	23,007	24,697
Snowden .....do.	.....	5,305	5,305
St. Mary's.....do.....	.....	3,180	3,130
Town Creek .....do.....	.....	1,646	1,646
Annapolis.....do.....	.....	1,957	1,975
Georgetown,Distr. of Columbia	2,883	33,098	35,982
Alexandria.....Virginia.....	3,770	8,634	12,234
Norfolk.....do.....	13,253	16,186	29,440
Petersburg .....do.....	.....	2,195	2,195
Richmond.....do.....	5,172	6,909	11,881
Yorktown ..... .do.....	.....	5,911	5,911
Tappahannock .....do.....	181	6,113	6,295
Accomac C. H. .....do.....	.....	6,019	6,019
East River.....do.....	.....	1,606	1,606
Yeocomico .....do.....	.....	3,955	3,955
Cherrystone.....do.....	.....	1,173	1,173
Wheeling .....do.....	.....	4,127	4,127
Wilmington.....North Carolina	10,683	9,271	19,955
Washington .....do.....	1,838	6,922	8,761
Newbern.....do.....	1,320	4,122	5,442
Edenton .....do.....	133	792	925
Camden .....do.....	1,208	12,653	13,861
Beaufort .....do.....	394	2,587	2,981
Plymouth.....do.....	1,155	3,275	4,430
Ocracoke.....do.....	.....	1,442	1,442

Statement, &c.,—Continued.

District.	Registered tonnage.	Enrolled & licensed ton.	Total tonnage of each dis.
	Tons.		
Charleston.....South Carolina	13,726	24,375	38,102
Georgetown.....do.....	1,838	2,174	4,013
Beaufort.....do.....	.....	.....	.....
Savannah.....Georgia.....	15,533	9,409	24,942
Sunbury.....do.....	.....	.....	.....
Brunswick.....do.....	117	1,051	1,168
Hardwick .....do.....	.....	.....	.....
St. Mary's.....do.....	397	792	1,190
Pensacola .....Florida.....	799	2,054	2,853
St. Augustine.....do.....	.....	.....	.....
St. Mark's.....do.....	1,363	.....	1,363
St. John's .....do.....	211	1,069	1,280
Appalachicola .....do.....	97	2,110	2,207
Key West .....do.....	4,423	2,265	6,689
Pearl River....Mississippi.....	.....	1,363	1,363
Vicksburg.....do.....	.....	.....	.....
New Orleans.....Louisiana....	103,996	79,821	183,818
Teche.....do.....	.....	3,255	3,255
Nashville.....Tennessee.....	.....	5,726	5,726
Memphis .....do.....	.....	1,894	1,894
Louisville .....Kentucky.....	.....	20,122	20,122
St. Louis.....Missouri.....	.....	48,575	48,575
Chicago .....Illinois.....	.....	31,041	31,041
Sandusky.....Ohio.....	.....	6,054	6,054
Cuyahoga .....do.....	.....	45,483	45,483
Cincinnati.....do.....	.....	23,842	23,842
Miami .....do.....	.....	5,479	5,479
New Albany.....Indiana.....	.....	2,952	2,952
Milwaukie .....Wisconsin.....	.....	14,217	14,217
Detroit .....Michigan.....	.....	52,456	52,456
Michilimackinac.....do.....	.....	4,393	4,393
Galveston .....Texas.....	1,862	5,818	7,681
Saluria .....do.....	109	1,036	1,145
Point Isabel .....do.....	644	226	871
SanFrancisco.....California...	46,262	47,257	93,519
Sonoma .....do.....	.....	1,215	1,215
Sacramento.....do.....	629	5,892	6,522
Astoria .....Oregon.....	.....	.....	.....
Alton .....Illinois.....	.....	309	309
Galena .....do.....	.....	334	334
Mobile .....Alabama.....	11,605	21,994	33,599
Puget Sund .....Oregon.....	42	1,149	1,192
Total.....	2,333,819	2,469,083	4,802,902

☞Fractions of Tons omitted.

A comparative view of the registered and enrolled tonnage of the United States, showing the tonnage employed in the whale fishery, also the proportion of the enrolled and licensed tonnage employed in the coasting trade, cod fishery, mackerel fishery, and whale fishery, from 1815 to 1854, inclusive.

Years.	Registered tonnage.	Enrolled tonnage.	Total tonnage.	Registered tonnage in the whale fishery.	Tonnage employed in steam navigation.	Proportion of the enrolled tonnage employed in the			
						Coasting trade.	Cod fishery.	Mackerel fishery.	Whale fish.
	Tons.								
1815.....	854,294	513,833	1,368,127	.....	.....	435,066	26,510	.....	1,229
1816.....	800,759	571,458	1,372,218	.....	.....	479,979	37,879	.....	1,168
1817.....	809,724	590,186	1,399,921	84,71	.....	481,457	53,990	.....	349
1818.....	606,088	619,095	1,225,184	16,134	.....	503,140	58,551	.....	614
1819.....	612,930	647,821	1,260,751	31,700	.....	523,556	65,044	.....	686
1820.....	919,047	661,118	1,280,166	35,391	.....	539,080	60,842	.....	1,053
1821.....	619,896	679,062	1,298,958	26,070	.....	559,435	51,351	.....	1,924
1822.....	628,150	696,548	1,324,699	45,449	.....	573,080	58,405	.....	3,133
1823.....	639,920	696,644	1,336,565	39,918	24,879	566,408	67,621	.....	585
1824.....	669,972	729,190	1,389,163	33,165	21,609	589,223	68,419	.....	180
1825.....	700,787	722,323	1,423,110	35,379	23,061	587,273	70,626	.....	.....
1826.....	737,978	796,210	1,534,189	41,757	34,058	666,420	63,761	.....	226
1827.....	747,170	873,437	1,620,607	45,653	40,197	732,937	74,048	.....	328
1828.....	812,619	928,772	1,741,391	54,621	39,418	758,922	74,947	.....	180
1829.....	650,142	610,654	1,260,797	57,284	54,036	508,858	101,796	.....	.....
1830.....	576,675	615,311	1,191,776	38,911	64,471	516,978	61,554	35,973	792
1831.....	620,451	647,394	1,267,846	82,315	34,445	539,723	60,977	46,210	481
1832.....	686,989	752,460	1,439,450	72,868	90,813	649,627	54,027	45,427	377

1833.....	750,026	856,123	1,606,149	101,158	101,849	744,198	62,720	48,725	478
1834.....	857,438	901,468	1,758,907	108,060	122,815	783,618	54,403	61,082	364
1835.....	885,520	939,118	1,824,940	97,640	122,815	792,301	72,374	64,443	.....
1836.....	897,774	984,328	1,820,132	144,680	145,556	873,023	62,307	64,425	1,573
1837.....	810,447	1,086,238	1,896,685	127,241	154,764	956,980	80,551	46,810	1,894
1838.....	822,591	1,173,047	1,995,639	119,629	193,413	1,041,105	70,064	56,649	5,229
1839.....	834,244	1,262,234	2,096,478	131,845	204,938	1,153,551	72,258	35,983	439
1840.....	899,764	1,280,999	2,180,764	136,926	202,339	1,176,694	76,035	28,269	.....
1841.....	845,803	1,184,940	2,130,741	157,405	175,088	1,107,067	66,551	11,321	.....
1842.....	975,358	1,117,031	2,092,390	151,612	229,661	1,045,753	54,804	16,096	377
1843.....	1,009,305	1,149,207	2,158,601	152,374	236,867	1,076,155	61,224	11,775	143
1844.....	1,068,764	1,211,330	2,280,095	168,293	272,179	1,109,614	85,224	16,170	321
1845.....	1,095,172	1,321,829	2,417,002	190,695	326,018	1,190,898	69,825	21,413	206
1846.....	1,131,286	1,431,798	2,562,084	189,980	347,893	1,289,870	72,516	36,463	439
1847.....	1,241,312	1,597,732	2,839,045	193,858	404,841	1,452,623	70,177	31,451	.....
1848.....	1,360,886	1,793,155	3,154,041	192,179	427,891	1,620,988	82,651	43,558	532
1849.....	1,438,941	1,895,073	3,334,015	180,186	462,394	1,730,410	42,970	73,853	.....
1850.....	1,585,711	1,949,743	3,535,454	146,016	525,946	1,755,796	85,646	58,111	.....
1851.....	1,726,307	2,046,123	3,772,439	181,644	583,607	1,854,317	87,475	50,539	.....
1852.....	1,899,448	2,238,992	4,138,440	193,797	643,240	2,008,021	102,659	72,546	.....
1753.....	2,103,674	2,303,336	4,407,010	193,203	514,097	2,134,256	109,227	59,850	.....
1854.....	2,333,819	2,469,083	4,802,902	181,901	676,607	2,273,900	102,194	35,041	.....

Statement showing the number and class of vessels built, and the tonnage thereof, in the several States and Territories of the United States from 1815 to 1354, inclusive.

Years.	CLASS OF VESSELS.					Total number of vessels built.	TOTAL TONNAGE.
	Ships and barques.	Brigs.	Schooners.	Sloops and canal boats.	Steamers.		Tons.
1815	136	224	681	274	....	1,314	154,624
1816	76	122	781	424	....	1,403	131,668
1817	34	86	559	394	....	1,073	86,393
1818	53	85	428	332	....	898	82,421
1819	53	82	473	242	....	850	79,817
1820	21	60	301	152	....	534	47,784
1821	43	89	248	127	....	507	55,856
1822	64	131	260	168	....	623	75,346
1823	55	127	260	165	15	622	75,007
1824	56	156	377	166	26	781	90,939
1825	56	197	538	168	35	994	114,997
1826	71	187	482	227	45	1,012	126,438
1827	55	153	464	241	28	934	104,342
1828	73	108	474	196	33	884	98,375
1829	44	68	485	145	43	785	77,098
1830	25	56	403	116	37	637	58,094
1831	72	95	416	94	34	711	85,962
1832	132	143	568	122	100	1,065	144,539
1833	144	169	625	185	65	1,188	161,626
1834	98	94	497	180	68	937	118,330
1835	25	50	301	100	30	507	46,238
1836	93	65	444	164	124	890	113,627
1837	67	72	507	168	135	949	122,987
1838	66	79	501	153	90	898	113,135
1839	83	89	439	122	125	858	120,989
1840	97	109	378	224	64	872	118,309
1841	114	101	310	157	78	762	118,893
1842	116	91	273	404	137	1,021	129,083
1843	58	34	138	173	79	482	63,617
1844	73	47	204	279	163	766	103,537
1845	124	87	322	342	163	1,038	146,018
1846	100	164	576	355	225	1,420	188,203
1847	151	168	689	392	198	1,598	243,732
1848	254	174	701	547	175	1,851	318,075
1849	198	148	623	370	208	1,547	256,577
1850	247	117	547	290	159	1,360	272,218
1851	211	65	522	326	233	1,367	298,203
1852	255	79	584	267	259	1,444	351,493
1853	269	95	681	394	271	1,710	425,572
1854	334	112	661	386	281	1,774	535,616

F. BIGGER, Register.

Treasury Department, Register's Office, November 1, 1854.

Imports of Foreign Merchandize at St. Louis.

It must be gratifying to the friends of the West to learn that while there has been a falling off in the amount of foreign merchandize imported at the eastern cities, the amount of revenue collected at St. Louis for the year ending June 30, 1855, is seventy five per cent. more than the preceding year.

This is to be regarded as one of the most encouraging features in the commerce of our city; for besides the influence it is calculated to produce on the minds of western dealers, it tends to establish St. Louis as a financial center, and to relieve the West in some degree from the constant drain of money for the benefit of the eastern cities.

We copy the following statement from the "Mo. Republican," of the 14th ultimo.

The Surveyor of this port, W. A. Linn, Esq., has kindly furnished us with a statement of the duties collected upon imports during the fiscal years 1854 and 1855, ending June 30th, as follows:

Duties collected upon imports during the fiscal year ending June 30, 1854	$373,868 04
Duties collected upon imports during the year ending June 30, 1855	654,758 06
Increase over 1854	$280,890 02
Hospital money collected for the fiscal year ending June 30, 1854	$3,195 61
Hospital money collected for the year ending June 30, 1855	3,646 95
Tonnage tax for 1854, for licences to pilots and engineers	1,621 50
Tonnage tax for 1855 for same	3,386 95

Amount of tonnage owned and belonging to the port of St. Louis, June 30, 1855, 48,261 82-95 tons.

Gold deposited at the U. S. Sub Treasury at St. Louis for the year ending June 30, 1855, 1 ton, 2 qrs., 5 lbs., 9 oz. avoirdupois.

Selkirk Trade.

The Red River Train. — Quite a curious and animated scene was presented last Saturday on Robert street, in front of Forbes & Kittson's store. The street was literally blocked up with the antiquated wooden carts of the train from the Selkirk settlement; horses and cattle, with all sorts of nondescript harnesses upon them, were tethered round about, buffalo robes lay piled upon the

ground, and a busy crowd of the dark skinned strangers were moving to and fro, earnestly engaged in the work of loading up the carts from the warehouse. Even to those accustomed to these semi-annual visitors the sight constituted a novelty, and in a stranger it could not but awaken a lively interest and curiosity. There is something so odd in all the arrangements they have for travel; things are so rough and uncouth in appearance as to seem utterly unfit for the purpose to which they are applied, and it requires a little examination and some reflection upon the circumstances which governed the outfit, to show that it is about the best that could be adopted for the long and tedious journey of over six hundred miles that is performed.

This detachment numbers ninety-eight carts, and is altogether from the English settlement at Selkirk. The owners brought with them a large quantity of valuable peltries, and take back a full load of supplies of every sort, for which they have paid thousands of dollars in cash. It is well to say here that St. Paul is indebted for this English portion of the Red River trade to the earnest exertions of our townsman, Norman W. Kitson, Esq., who has for several years labored zealously to direct the trade of Selkirk from York Factory to this place—so that St. Paul, and not London, has now become the supplying source to gratify their wants. This is an important addition to their trading intercourse, and we are glad to hear that the traders have expressed themselves well pleased with the market, and the facilities they have found here. There can be scarcely any doubt, therefore, that the trade thus auspiciously opened, will be regularly continued. Nearly every place of business in the city has reaped a greater or less benefit from it at this time, and it should by all means be encouraged.

It is pretty certain that the whole train will start on the return trip to-day, and in about twenty-five or thirty days from this, it will reach Selkirk. The route is by way of Crow Wing.

Mr. Kitson started alone in April last for the Red River of the North, and reached there in eleven days time. He succeeded in his object of directing the train from the York Factory, and then turned his steps homeward, arriving here about ten days before the carts, a pretty active, and certainly a most timely movement.

The horses and cattle brought down for sale have not realized the prices expected, but we are told that no loss has been incurred.

The American portion of the train, under the charge of Messrs. Rolette and Cavilleer, is expected to arrive here some time between the 5th and 10th inst. It numbers one hundred and fifty carts, and is, we are informed, loaded with a very large and valuable stock of furs, &c. Those who come with it, will have large demands to make, and it cannot but be gratifying to our dealers to know that they are so soon to have such a number of good customers at their doors.—(*St. Paul Pioneer.*)

From the Cincinnati Columbian & G. W.

The Canals of Ohio and their Financial Condition.

The publication of an advertisement by the State of Pennsylvania, offering its Public Works for sale, suggests an inquiry into the financial condition of the Ohio Canals. They were undertaken and constructed when Canals were the highest species of internal improvement for the purposes of trade; and no suspicion was entertained that they would ever become obsolete. But time, human invention, and the advance of civilization are strange innovators upon human customs; they turn old ideas out of doors, and things which even fancy never dreamed of, become the every-day instruments of every-day life. The fact is, the Canal is obsolete; there is no concealing the fact, if we would, and no use in denying it. Brinsley, the great Civil Engineer, said, that the greatest use of rivers was to FEED CANALS; but now an engineer would say, that the best use of a canal would be, to FEED STEAM ENGINES.

The Canals of Ohio were commenced in 1825, under the auspices of the Morrows, and Worthingtons, and Browns,—days when Ohio had great men,—and when the people preferred great men to empty-headed demagogues. New York had just completed the Erie Canal, and Canals were the rage. Dewitt Clinton came out to Ohio to inaugurate the Miami Canal, at Middletown. The main system was finished before 1830, and lived about twenty years, in prosperity and usefulness. They reached their acme of prosperity about 1851, and have since been rapidly declining.

One thing may be considered a maxim in all commercial locomotion. Men will not go slow when they can go fast. Of course, Canals take no passengers of consequence. On the same principle, they take no light goods of value. Still the friends of Canals insisted that the Canals must be preferred for heavy articles. They said they could carry them cheapest. This was thought conclusive, till the Reading Railroad, alongside the Schuylkill Canal, proved its superiority to the latter, for conveying coal. Since that the New York Railroads have come so severely into competition with the Erie Canal, that the question was before the New York Legislature last winter, whether the Railroads shall be taxed for the benefit of Canals!

But let us look into the final condition of the Ohio Canals. The following are the NETT RECEIPTS paid into the Ohio State Treassury from the Canals since 1850:

	1851.	1852.	1853.	1854.
Ohio Canal	$294,299	$196,693	$107.999	$82.587
Miami Canal	157.275	47,835	56 426	64,686
Muskingum Improvements	32,859	7,207	7,811	2,858
Hocking Canal	3,425	.....	1,839	2,325
Walhonding	.....	.....	.....	.....
Total	$487,856	$251,195	$174,075	$152,459

This is certainly growing smaller and smaller with a vengeance.

The diminution from 1851 to 1852 was nearly ONE HALF; the diminution from 1852 to 1853, was ONE-FOURTH; the diminution from 1853 to 1854 was 15 per cent. The nett revenue of 1854 was only about 31 per cent. of that in 1851.

The *aggregate* of Canal Receipts in 1854 was $508,000; the *nett Receipts* $152,559. It appears, therefore, that it costs the State of Ohio the moderate sum of *seventy per cent.* (!) to keep them in repair, and collect the rents! This was not in one year only. It cost more yet in 1853. In these two years, the tolls on the Canals were $1,300,000, while the nett receipts were only $326,000.

Under these circumstances, we cannot avoid the conclusion that the Ohio Canals have been *most wretchedly mismanaged.* How else is the thing to be accounted for? The Ohio Canals, and expenses, have cost *nearly double*, in proportion, that of the Railways; and yet, the Canal is, in every respect, a cheaper and less expensive machine than a railway. How, then, can we resist the conclusion, that there is mismanagement, if nothing worse, in the conduct of the official managers of the Canals.

Those who want to reform great public corruption, should remember that it is not in the *salaries* of public officers they are to look for the leaks. It is in the giving out of *contracts*, *agencies*, *commissions*, &c., in which large sums may be given to friends, and never discovered. Give out a job at only five per cent. higher than it ought to be, and if the amount is large, there will be fine pickings. This part of the subject, however, we need not dwell on. We are looking only at the financial question.

The Auditor of State reports the Public Debt at $15,200,000, nearly all of which has been incurred for the Canals; for which it seems, we received $152,459. The account of interest and receipts stands thus:

Debt	$15,200,000
Interest	900,000
Nett Receipts of Public Works	152,159
Provided by Tax	747,541

While our State Auditor, therefore, tells us we pay little for the State, here are some figures which tell a very different story.

The *nett* revenue of the Public Works is only 17 per cent. of the *interest* of the Public Debt. The Canals, therefore, are *worth* precisely that per cent. of the Public Debt. They are worth exactly *two millions, five hundred and eighty-four thousand dollars*, and they are worth no more. Will they ever be worth more? There is certainly no prospects of it. There willl probably be a revival of business on the Canals, this Fall, but it will be only temporary.

Putting the Public Works in the hands of capable and responsible men, may accomplish something in favor of the revenue; but, at last, there is little hope of improved revenue from them. The State of Ohio should either *lease* her works, or *sell* them. In either case, she will get more revenue than she ever can get out of such public officers, as have heretofore managed the Canals.

DEPARTMENT OF PUBLIC IMPROVEMENT.

Bloomington, Kankakee & Indiana State Line Railroad.

This is a very important work in the system of railroads concentrating at St. Louis. By this line a connection will be formed with the Southern Michigan and Michigan Central railroads; opening direct intercourse between St. Louis and the northwestern part of Indiana, and with the southern and central portions of Michigan.

The "Railroad Record" contains the following notice of this enterprise:

"The Southern terminus of this road is Bloomington, on the Illinois Central railroad, at the point where the Chicago branch diverges from the main line, and the northern terminus is Niles, on the Michigan Central railroad. Laporte, on the Northern Indiana and Southern Michigan railroad, is made also a point. At a meeting of citizens from Michigan, Indiana and Illinois, favorable to the construction of this road, held at Kankakee, on May 17, the following resolutions were adopted:

On motion of O. Beebe, Esq.,

Resolved, That the stock of this railroad be divided into shares of fifty dollars each.

On motion of W. A. Chatfield, Esq.,

Resolved, That Jesse W. Fell, Esq., A. Gridley, Esq , and W. F. M. Arney, Esq., of McLean county, be and are hereby authorized to open books in the counties of McLean and Livingston for the subscription of stock in the Bloomington, Kankakee and Indiana State Line Railroad; and W. A. Chatfield, Esq., Orson Beebe, Esq., James M. Perry, Esq., and Noel Vesser, Esq., in Kankakee county, on the 4th day of July next; and that they keep said books open till the amount of stock required by the charter of said railroad shall be obtained.

Resolved, That the board of corporators adjourn to meet in the Sherman House, in the city of Chicago, on the 21st day of June, at 2 o'clock, P. M."

Ohio and Mississippi Railroad Open to Vincenness.

The Western Division of this great work was opened on the 3d ultimo, and the event was celebrated at Vincennes, on the 4th, by a large number of citizens from Indiana, Illinois and Missouri.

The Mississippi Central Railroad.

The passenger train has commenced running on the Mississippi Central Railroad. It runs from the junction with the Memphis & Charleston road, at Pledgville, to Lamar, Miss, a distance of 11 miles, where it connects with L. SIMS & BRO's famous line of coaches to Holly Springs, Oxford, Coffeeville, Grenada, &c.

We had the pleasure of traveling over this road a few days since. Our impression at the time was that the track is not as well laid as it might be; but the Directors, we understand, say that any defects arising from this source shall be speedily remedied. One thing we think we can safely assert: *The bridges are admirably constructed*, (with cross-ties.) So solid are they, that the trains run as swiftly over them as any other part of the road. At present, indeed, and as yet, they are more solid than the road bed. These bridges have been built by that experienced contractor, Mr. D. SHEPHERD, whose services in the same department of construction, we are pleased to learn, have been secured by the Memphis & Little Rock Railroad Company.

The Mississippi Central road will be ironed to Holly Springs in ample time for the next crop—say, by the middle or last of September.—(*Eagle & Enquirer, July 4th.*)

Memphis and Charleston Railroad.

From the fifth annual report of the Board of Directors of this road we learn that they expect to complete 129 miles of the eastern division, from Tuscumbia Landing to Stephenson, the point of intersection with the Nashville and Chattanooga Railroad, by November next. It is also expected that the first 30 miles east of Lagrange will be completed by July or August of the present year, which will make 75 miles of main road complete from Memphis east. The whole line is under contract, and is expected to be completed and in operation in time for the business of the fall of 1856. Rails have been recently purchased for the completion of the whole line.

We extract the following statement from the Report before us, showing the cost of the road, the condition of the company, &c.

EASTERN DIVISION.— Stephenson to Decatur, 83 2-10 miles, whole estimated cost of road fully equipped and in operation $1,527,546 07

Decatur to Tuscumbia, including branch to Tennessee river, 45 miles, estimated cost, fully equipped and in running order 507,321 95

Tuscumbia to Mississippi line, 24 3-10 miles, estimated cost of road and equipment when finished . .		586,613 44
Total cost of Eastern Division, fully equipped and in operation, 150½ miles of main road and 2 miles of branch—in all 152½ miles		$2,621,481 46
The expenditures upon this Division as per Treasurer's report, has been . . . . . , .		1,431,325 40
Leaving yet to be expended to complete this Division,		$1,190,156 06

WESTERN DIVISION.—Memphis to La Grange, including Branch to Sommerville, 63 miles.

Cost of construction and equipment when in full running order		$774,933 81
La Grange to Big Hill, 30 4-10 miles, cost of construction and equipment when finished		748,448 00
Big Hill to Alabama line, 41 6-10 miles, cost of construction and equipment in running order .		795,400 00
Estimated cost of the entire Western Division when finished and in operation		$2,318,781 81
By amount paid on above as per Treasurer's report, to 1st March, 1855		1,222,512 21
Leaves amount yet to be expended		$1,096,269 60

ENTIRE COST OF THE ROAD.—

Eastern Division, 152½ miles		$2,621,481 46
Western Division, 134¼ miles		2,318,781 81
Whole length, 286¾ miles		$4,940,263 27

Making the cost of the whole road, including branches, 286¾ miles, when finished and fully equipped, $4,940,263 27, or $15,228 per mile for road construction, and $17,228 per mile for construction and equipment.

Deduct from the entire cost, the amount paid to 1st of March, 1855, as per Treasurer's report:

Paid on Eastern Division . .	$,1,431,325 40	
" " Western Division . .	1,222,512 21	$2,653,837 61
Will leave the balance to be expended to complete and fully equip the road		$2,286,425 66
Add to this the present liabilities		103,173 10
Prospective interest on State bonds		54,000 00
		$2,443,598 86
Deduct from this sum the available assets on hand		
Eastern Division . . .	$478,872 01	
Western Division . . .	1,201,544 19	—1,680,416 20
Leaving the amount to be provided		$763,182 66

to finish and equip the entire road.

The foregoing estimates are for the road when finished and fully equipped. The policy adopted by the Board heretofore, has been to put as little of the means of the Company into any thing else than road bed and iron as possible, as the road when finished can supply the means to equip itself, should the Company not be able to raise the money for that purpose without making too great sacrifices.

When we reflect that about one-half of this line passes through a country comparatively rugged, and that it crosses the Tennessee on a bridge at a point where the river is nearly, if not quite, as wide as the Mississippi at St. Louis, we are at a loss to account for the great difference between the cost of this road and the roads in Missouri and Illinois.

NORTH MISSOURI RAILROAD.

We learn that the track has been laid from St. Louis to the Missouri River opposite St. Charles, and we notice that a lot of wheat was transported over the road about the middle of July. We are informed that the line from St. Louis to St. Charles will be opened to the public some time during the present month.

COMPLETION OF THE ILLINOIS CENTRAL R. R.

Yesterday morning about half past seven o'clock the "Construction Train" came through to the terminus of the road, opposite this city. Passenger trains we understand will commence running regularly to and from Dubuque and Dunleith on Monday next.

Monday next will then be an important day in the annals of Dubuque and of the entire Northwest and as such should be commemorated by our citizens in a becoming manner. "Peosta" in this mornings paper proposes that the celebration take place on the 4th of July next. Should our citizens agree with the suggestions, we have no objection to a combination of the Railroad celebration with a proper demonstration on the anniversary of the American Independence.—(*Dubuque Express & Herald*, *June* 6, 1855.

☞ The completion of this work was celebrated at Dubuque on the 18th ultimo.

THE

WESTERN JOURNAL

and Civilian.

VOL. XIV. September, 1855. 4.

ARTICLE I.

A Retrospect of the Western Journal & Civilian.

A review of the subjects which have been discussed in the Western Journal, can scarcely be interesting or useful to those who have read it from its commencement, and to that portion of our patrons we feel that an apology is due for adverting to the history of our own labors. But to more recent patrons, we are persuaded that a brief statement of the original plan and objects of the work, and of the manner in which it has been conducted, will be profitable and perhaps interesting.

We had read the history of civilization from the deluge to our own times, had traced the rise, progress and decay of many nations, and arrived at the conclusion that most of the evils by which the human family had been afflicted, sprung from the desire of man to escape from labor and subsist upon the fruits produced by the toil of his fellow-man. Hence, as we conceived, the tyranny involved in almost all the governments which had ever existed; hence the want of justice, confidence and charity on the part of individuals, and hence the reason that the sublime and humanizing doctrines of christianity had made so little progress. Impressed with this view of the past, we contemplated this broad continent, comparatively uninhabited, but destined to contain, at no very remote period, perhaps one third of the human family, and asked what assurance have we that the people of America will escape the evils which have afflicted the old world?

In searching for the answer to this enquiry, we found that our fathers had devised and established a government sufficiently just and liberal in its principles to admit of indefinite advancement towards a higher and better state of civilization; but we perceived, as we imagined, that the present generation, like the unwise off-

spring of a good and munificent parent, were in haste to enjoy their patrimony instead of improving it for the benefit of their posterity; and that unless they and their descendants acted up to the spirit of the institutions bequeathed to them, the history of these United States would afford another instance in proof of the doctrine that man is incapable of self-government.

Entertaining these views, we conceived it to be our duty to devote our time and talents to the cause of social improvement—the cause of humanity. And with a view to this end, we entered upon the publication of the Western Journal. In devising the plan, we aimed to make its foundation sufficiently broad to embrace every branch of social and political economy, and of sufficient strength to sustain any additions which might be made to it for centuries.

Our first object was to reconcile man to labor in obedience to the divine injunction, and to this end we endeavored to show that bodily exercise was a physical necessity, and that the application of that exercise to useful purposes was a high moral duty. It was obvious that to make labor pleasing and profitable, it must be associated with a higher degree of intelligence than has ever been enjoyed by the laboring classes of any other country; and hence, we were led to advocate a system of education which should ensure a reasonable degree of instruction to every individual born of our race. The first of these subjects was fully discussed in the first volume, and has since been adverted to upon all proper occasions; and besides our own efforts, the latter has been elaborated and presented in a variety of lights by others who have generously contributed their labors to the advancement of a cause which claims and receives the support of every true philanthropist.

The plan of the Western Journal embracing the entire subject of political economy, much of our labor has been directed to different branches of that science. The elements of wealth, the division of labor, the natural laws of commerce, the artificial agents of exchange—money, credit, banks, industrial corporations, and public improvements—have all claimed and received our consideration. The elements of these several subjects have been carefully investigated, and we have endeavored to form a system adapted to the character, pursuits and social institutions of the American people: a system conforming to the climate, territorial extent and hydrography of our continent, and its geographical relations to other countries.

The investigation of these subjects has necessarily led us into discussions touching the policy of our own State, and of the General Government. Public improvements, banking, the usury laws, homestead exemptions, industrial corporations, limited partnerships, a geological survey, and other subjects of State policy, have been discussed at such times as seemed most proper for their consideration. The improvement of western rivers, the disposition of the public domain, the Pacific railroad, and the protection of American industry, have been frequently discussed; and the merits of these measures examined, irrespective of the opinions of political parties or of distinguished individuals.

Located at the central point of the great basin of the Mississippi, it was natural and reasonable that the interests of this region should claim our first and principal attention; and hence we have continually kept in view the development of its vast resources. We conceived that, through the medium of an extensive foreign commerce, the financial condition of this country was too intimately connected with the state of things abroad; and that our prosperity depended, in too great a degree, upon the commercial operations and industrial pursuits of a people laboring to support a hereditary aristocracy, and the most costly institutions upon earth. To counteract these influences, we have endeavored to show the wisdom of affording reasonable protection to American industry, and of building up and establishing a system of internal commerce whose center shall be in the basin of the Mississippi. Believing that such a system of commerce was necessary not only to develop the resources of the central region, but to secure ts just influence in the councils of the nation, we advocated, as a means of promoting these objects, an extensive system of public improvement, and the disposition of the public domain under a system which would encourage the settlement of the Western States and territories, and compel the general government at an early day to part with its entire claim to lands lying within the States. Indeed so important have we regarded the establishment of a system of internal commerce in the West, that almost every branch of political economy has been discussed with a view to that object. For in the present state of civilization, the arts, manufactures, capital, literature and political power, all cluster around the great commercial centers ; and it should be the policy of the statesman to neutralize the influence of these great centers by encouraging the growth of rivals.

That our readers might be in possession of facts which would enable them to reason for themselves, and prevent them from being mislead by designing politicians and ignorant pretenders, we have carefully collected, arranged and published, from the most authentic sources, a vast amount of statistics relating to every department of industry and to almost every subject that can interest one desiring general and correct information.

Though we regarded agriculture and the mechanic arts as the basis of civilization, we soon discovered that those engaged in these great departments of industry generally preferred papers more exclusively devoted to their respective pursuits; and hence we have given less space to the details connected with their employments. But we did not abandon their interests. Indeed, so dependant are all other interests upon the prosperity of those engaged in these two departments of industry, that it would be difficult to conceive a policy by which any other important interest could be materially and permanently advanced without benefitting these also.

Moreover, we have aimed to make the Western Journal a repository of facts relating to the history of this great central region; and have been attentive to the collection of such matter as will, in our opinion, be useful to the historian and profitable to future generations. In this department, we have received many valuable contributions from individuals who have generously assisted us in rendering our Journal worthy of the age and of the objects for which it was established.

In selecting matter for publication, we have always sought for that which was useful: facts and arguments calculated to enlighten the mind of our readers in respect to subjects in which they were either directly or indirectly interested.

With few exceptions, it was intended to make each leading article a complete treatise on some subject which had not been previously discussed. Some of these are on philosophical and moral topics designed to give a moral direction to the entire work.

For it was our design in the beginning to combine social and political economy in one system, that the minds of our readers should be accustomed to regard all useful labor, whether physical or mental, as a rich and never-failing source of moral enjoyment as well as the means of producing subsistence and wealth.

We have continually borne in mind that the sparcely populated region for whose inhabitants we are now laboring, will in all prob-

ability contain one hundred millions of human beings within the lifetime of some who now read our Journal, and that whatever influence we may exert upon the public policy of the present day, and whatever doctrines we may inculcate, their effects, if any, for good or for evil, must within the period of a few generations be felt by perhaps one third of the inhabitants of the whole earth. Hence we have exercised great caution in the advocacy of all public measures, and have carefully considered the nature and bearing of all we have ventured to write and publish on philosophical and moral subjects.

The Western Journal, now the Western Journal and Civilian, struggled into existence and has been established under circumstances in every way discouraging.

The Editors were but little known to the public as writers, and had no experience as publishers; they did not propose to advocate the cause of any party in politics or sect in religion; they espoused the cause of no particular order or class of individuals , nor did they propose to promulgate any new doctrines of their own, which were not consistent with the recognized order of society, with philosophy and christianity. And besides, the people of the West, from its earliest settlement, had been accustomed to look to the East for their literature, and could scarcely conceive that, excepting in the form of a newspaper, anything could be written or published in their midst that would be interesting or profitable. A number of Monthlies had been commenced west of the Alleghanies which had failed, and it was to be expected that but few would have sufficient confidence in our enterprise to authorize them to patronize it by subscribing and paying in advance. Under all these discouraging circumstances, we resolved upon the undertaking without a subscriber, and issued the first number in January, 1848, without even publishing a prospectus. For we had determined to place the work upon its own merits, and trust to time and the sound, unbiased judgment of the community for success.

This is the eighty-fourth number of the work, and the leading article in all excepting one has been written by the same hand. It is not our purpose to speak of their merits or of the influence which the Western Journal & Civilian considered as an entire work may have had upon the opinions of individuals or the actions of public bodies. We do not claim to have done more than to have laid the foundation of a great work, which we trust will be continued and

improved indefinitely, or at least until it shall have reached its hundredth volume. We feel that by the unremitting labor of nearly eight years, we are entitled to and have obtained the confidence of a respectable portion of the best judging minds of the West, and aided by the experience of the past and, if possible, by a more intense devotion to the great interests embraced in the original plan, we trust we shall be able to make our labors more interesting and profitable each succeeding year.

We are conscious that much time and labor are still required to give the Western Journal & Civilian that commanding position and influence, which a work of the kind ought to attain in this great valley. But we are not impatient of its slow growth. It is a law of literature as well as of the vegetable kingdom, that rapid development is indicative of early decay; it is by gradual accretions during a long period that great volume and solid, durable strength are attained. Indeed we have eschewed such means as were calculated to give the work a premature circulation. No matter what our success might be, we could not look back upon our labors with complacency or even with "conscience quite at ease," if the fabrick, which cost so much in building, was reared upon an uncertain foundation, or did consist of materials which like annual plants would decay with the seasons that produced them.

Yet the duty of extending the circulation by all proper means is involved in that of publishing the work, and, claiming the confidence of the public on the ground of our past labors, we appeal to the people of the West for a just, we do not say liberal, support. In this appeal we include all classes and denominations, for our labors are devoted to the best interests of all. Let no one conclude that the work will not be useful to him because it does not espouse his particular opinions, or profess to be the organ of his party or sect. No cause which rests upon the opinions of men can be safe and gather strength unless its friends make themselves acquainted with the reasoning and arguments of their opponents. Then, be it known, that we are in the field battling for the cause of truth and of human improvement, according to our own views of the right; and if there should be those who differ with us in respect to the mode of promoting these ends, or if indeed there be any who oppose their attainment, it behooves them to read the Western Journal & Civilian. Let none suppose that they can discharge their obligations to us and themselves by simply expressing their approbation of our la-

bors; the cause in which we are engaged demands a more vitalizing and efficient element to sustain and carry it onward. Let them but afford the means, and we pledge ourselves to procure the talent and artistic skill that shall place the Western Journal & Civilian in the first rank of periodicals in this or any other country, and make it a monument that western men shall point to with pride.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 164, Vol. XIV, No. 3.

Trade to New Orleans in 1782 to 1798; Negociations with Spain about the navigation of the Mississippi; Views of John Jay, of the old Congress; Rejection of them by Spain; Resolutions of Congress. of Virginia; Visit of Wilkinson to N. Orleans, in 1787; Seizure of his boat; Release; Spanish permission of Trade; Price of tobacco in Kentucky and New Orleans, 1787.

TRADE OF THE WEST WITH NEW ORLEANS.—In a former portion of this work, the author noticed the first expeditions of our countrymen down the Mississippi, which have been preserved. These were engagements of individual curiosity, or of a military nature, as those of Cols. Gibson, Linn and Benham; the openings of trade down the great rivers is of no less consequence to the history of the settlement of the Ohio valley.

Among the first buddings of intercourse, rather than trade with New Orleans, from the Valley of the Ohio, must be reckoned the voyages of Messrs. Tardiveau and Honoré, the latter, my authority, was an ancient and respectable French merchant of Louisville in Kentucky. These gentlemen left Redstone, now the town of Brownsville, on the Monongahela, in 1782, when there were but two houses in that famous old port of departure by water, for the immigrants down the Ohio. The navigation of this river, and still more the Mississippi, was then much infested by banditti of white men, as well as of Indians. The French gentlemen just mentioned were both stopped by the Indians, and the former of them robbed; indeed, the Mississippi was as much debarred to American trade, by the overbearing government of Spain, as by the Indians. They acted in concert. American property was seized and confiscated by the Spaniards on its way to a foreign market. "All who ventured on the Mississippi had their property seized by the first com-

manding officer whom they met, and little or no communication was kept up between the two countries."* This was as late as 1798.

A negociation on the subject of the navigation of the Mississippi, as well as other matters of national difference, had commenced between Mr. Jay and Don Diego Gardoqui, the representative of Spain near the United States. "Congress had expressly ordered the Secretary for Foreign Affairs to stipulate both for the territory of the United States according to the treaty with Great Britain, and for the navigation of the Mississippi, from its source to the ocean. Don Gardoqui on the other hand, declared that the Spanish king would never *permit* any nation to use that river, both banks of which belonged to him."† Under these circumstances, Mr. Jay was called before Congress to communicate his views on the negotiation; "he informed Congress that Spain was ready to grant the United States extensive and valuable commercial privileges; and that it was in her power by her influence with the Barbary States, and by her connexion with France and Portugal, greatly to injure the commerce of America, and to benefit that of England. But that at present the question respecting the Mississippi and territorial limits prevented any commercial arrangements whatever; that his own opinion of the justice and importance of the claims advanced by the United States, had undergone *no change;* but that, under present circumstances, he thought it would be expedient to conclude a treaty with Spain, limited to *twenty* or *thirty* years, and for the United States to stipulate, that during that term of the treaty, they would *forbear* to navigate the Mississippi below their southern boundary."‡ This had been recommended by Virginia during the Revolutionary war. This proposition of Mr. Jay was founded on the opinion "that however, imperfect the navigation might ultimately be, it would not probably be very essential, during the proposed term; and that therefore, it might be good policy to consent not to use for a certain period, what they did not want, in consideration of valuable commercial privileges." These views of Mr. Jay were sanctioned by seven States, but opposed by the other six; still the Spanish minister would not consent to any treaty whatever, implying a right in the United States

* Wilkinson's Memoirs, II, App. VI, p. 3.
† Jay's Life, I, 235, 236.
‡ Idem.

to the navigation in question; the negotiation proved fruitless, and was finally terminated by Gardoqui's return to Europe. This is an authentic account of the negotiation under the old Confederation, in regard to the navigation of the Mississippi, which however incontestable to the extent of our own boundary, the United States were in no condition to extort by force of arms, under the feeble government then existing. It was in weakness and insignificance closely allied to what the German empire used to be in Europe; it was, in the language of a favorite Revolutionary figure, a political barrel of thirteen staves without a hoop.

Let us reflect for a moment, what would have been the effect of this cession, even for twenty years, as actually authorised, or thirty years as the utmost limit proposed by the Secretary. Twenty years from 1786 would have brought the commercial limitation to 1806; four years after the bare *suspension* by the local Intendant of the right of deposit at New Orleans granted to the trade of the United States, by the Spanish treaty of 1795. This interruption of the navigation of this great stream blew the western country into a flame, that would have consumed every tie of the confederacy, had its councils slumbered over interests so precious and vital to this section of the United States. It required all the wisdom and patriotism, with the enthusiastic popularity of President Jefferson, to avoid a war with Spain, in support of this navigation. What, then, would have been the feelings of the country, but particularly its western section, had its trade been suspended by treaty obligation for thirty years? What would have been the discouragement to the settlement of the western country? It would doubtless have righted itself; and no longer continued under a government that could thus abandon its indispensable interests. Sagacious as the views of Mr. Jay were, and in this instance, adapted to the probable condition of the western country, and the encouragement of Atlantic trade, yet the gigantic progress of the West has outstripped the anticipations of our wisest statesmen. Our progress has been a race scarcely checked by any accident on the course. Yet, the enthusiasm of the acute and benevolent Berkely fancied that he saw it, when he exclaimed that "Westward the star of empire takes its way."* Rumors of this negotiation reached Kentucky,

* But even the veteran statesman, Choiseul, predicted the independence and prosperity of America, in 1765, in a memorial to his sovereign. Bancroft, V, 341.

when no post office existed in the District, and when no safe or certain mode of conveyance for letters or newspapers was established between it and the rest of the Union."* Nor for two years later did it reach further than Fort Pitt; and then only once in two weeks.† The seat of the federal government was then the city of New York; these combined difficulties must have subjected the conduct of the government to much misconception, and no little misrepresentation, by intriguing or deluded candidates for political honors.

These exaggerated representations on the subject of a navigation, so deeply and vitally important to the western country, had produced an association at Fort Pitt, which transmitted to Kentucky a most erroneous account of the Spanish negotiation, well calculated to kindle the passions of a less excitable people than her own. This statement purported to represent that "John Jay, the American Secretary for foreign affairs, had made a proposition to Don Gardoqui, the Spanish minister near the United States, to cede the navigation of the Mississippi to Spain for twenty-five or thirty years; in consideration of some commercial advantages to be granted to the United States; but such, as the people of the western country could derive no profit from."‡ The truth is, that the proposition was submitted to Congress, and was supported by seven Northeastern States against five Southern ones; but the offer, if made to the Spanish minister, (which does not certainly appear,) had been rejected by him. An instruction to a minister was deemed to come strictly under the clause in the articles of the Confederation, requiring the assent of nine States to form treaties with foreign nations; consequently the proposition of the Secretary fell in *Congress*. Whether the offer was made after the repeal of the instructions to the Secretary, of the 25th of August, 1785, which as mentioned had been previously carried by the vote of the same States, is not clearly exhibited; though implied by the language of Mr. Jay's biographer, as well as that of Mr. Pilkin.¶ The communication from Fort Pitt, or Pittsburg as it had for some time been designated,‖ roused the sensibilities of Kentucky to a high

* Marshall, I, 257.

† Idem, I, 139.

‡ Idem, 258.

¶ Jay's Life, 2, 238. Pilkin, 1, 201, 208.

‖ The rise of this most thriving and interesting city, the first born of the arts in the West, is faithfully collected by Mr. Craig, in his History of Pittsburg, a

pitch on so exciting a subject and one involving the dearest interests of her trade. A circular letter addressed by Messrs. Muter, Innes, Brown and Sebastian, in March, 1787, invited a public meeting of the citizens of the District, at Danville, in the ensuing May. The language of this memorial has been objected to by the first historian of Kentucky,* because it charged "*Congress* with proposing to cede to the Spanish court the navigation of the Mississippi for twenty-five or thirty years;" while that had failed by an insufficient majority, under the 9th article, of the 6th section of the Confederation. Yet, a previous vote had, with some doubt however on the subject, rescinded the former instruction to Mr. Jay, to conclude no treaty with the Spanish minister without obtaining "the full navigation of the Mississippi from its source to the ocean;" and moreover Mr. Jay was at first instructed neither to make, nor receive any propositions, nor to enter into any compact with the Spanish minister without previously communicating the same to Congress.† The circumstance therefore of *continuing* the negotiation, after the removal of the former restriction, certainly sanctions the idea of the Danville circular, that the suspension of the navigation in question had been offered by Congress, through the Secretary, though it had been disdainfully rejected by the minister of haughty Spain, as has been mentioned.

It must have been owing to want of this information, (almost unavoidable in the early and rude condition of government in its operations in the West,) that induced either of the meetings at Pittsburg or Danville, to procure an expression of public opinion on a matter which had died at its birth.

Nor was the mistake peculiar to these meetings; since a letter addressed from the Falls of Ohio, in December, 1786, to the Governor and Legislature of Georgia, represented "a *commerce* treaty" with Spain "to be cruel, oppressive and unjust. "The *prohibition* of the navigation of the Mississippi has astonished the whole western country. To *sell* us and make us *vassals* to the merciless Spaniards, is a grievance not to be borne." A copy of

work only to be compared with Cist's Miscellany for Cincinnati. From this former work it appears that the lots were laid out and finally confirmed by the act of the proprietaries in 1784. It is spoken of as "*what is called the town*" of Pittsburg by Gen. Washington in 1770; its first incorporation as a TOWN I have not found out. It was incorporated as a city, March 18, 1816. Craig's Pittsburg, 107, 388.

* Marshall, 1, 259.

† Pilkin, 1, 201. Idem, 208.

this letter and others of a similar character were laid before Congress; when on the 16th of September, 1788, this body authorized its members to contradict the reports that it was disposed to treat with Spain for the surrender of their claim to the navigation of the river Mississippi. "This venerable body likewise resolved* "that the free navigation of the river Mississippi is a clear and essential right of the United States, and that the same ought to be considered and supported as such." Before these resolutions had been adopted by Congress, the Legislature of Virginia had also taken up the subject, in November, 1786; and had unanimously resolved 2d. "That the common right of navigating the Mississippi, and of communicating with other nations through that channel, be considered the bountiful gift of nature to the United States, as proprietors of the territories watered by the river and its eastern branches. 3d. That the confederacy having been formed on the broad basis of equal rights in every part thereof, and confided to the protection and guardianship of the whole; a sacrifice of the rights of any one part, to the supposed or real interests of another part, would be a flagrant violation of justice, and a direct contravention of the end for which the federal government was instituted, and an alarming innovation in the system of the Union. 4th. That the delegates representing this State in Congress, be instructed in the most decided terms, to oppose any attempts that may be made in Congress to barter or surrender to any nation whatever the right of the United States to the free and common use of the river Mississippi; and to protest against the same as a dishonorable departure from that comprehensive and benevolent policy which constitutes the vital principle of the confederacy; as provoking the *just* resentments and the reproaches of our western brethren, whose *essential rights and interests would be thereby sacrificed and sold;* as destroying that confidence in the wisdom, justice and liberality of the federal councils, which is so necessary at this crisis to a proper enlargement of their authority; and finally, as tending to undermine our repose, our prosperity and our union itself; and that the said delegates be further instructed to urge the proper negotiations with Spain for obtaining her concurrence in such regulations touching the mutual and common use of the said river, as may secure the permanent harmony and affection of the two na-

* Pilkin, 2, 208, 210.

tions; and such as the wise and generous policy of his Catholic Majesty will perceive to be no less due to the interests of his own subjects, than to the just and friendly views of the United States."

These resolutions deserve to be recorded, for the just and lofty views they express upon the administration of confederated States extending from the Atlantic to the Mississippi. They seem to have had their just effect upon the meeting at Danville; they had been adopted by the Virginia Legislature four months before the circular inviting this meeting; and it adjourned without any definite expression on the subject. A circumstance not a little remarkable for a meeting of Kentuckians, whose temper upon subjects less indispensably important than this, has seldom been so moderate: a fire of resolutions might at least have been expected. The action of Congress and the State Legislature four months previous, must certainly have reached the District, and had this quieting effect.

In June, 1787, General James Wilkinson, who had migrated to Kentucky in 1784, descended to New Orleans with a small cargo of tobacco, determined to try his enterprise and address at the seat of the provincial government of Louisiana, in effecting the commercial intercourse of the western country down the Mississippi. In due course of time the General's boat arrived at Natchez, still in possession of the Spaniards. It was by some secret influence suffered to proceed to New Orleans. "The arrival of a boat belonging to Gen. Wilkinson, loaded with tobacco and other productions of Kentucky, is announced in town; and a guard is immediately sent on board of it. The General's name had hindered this being done at Natchez; as the commandant was fearful that such a step might be displeasing to his superiors, who might wish to show some respect to the property of a general officer; at all events the boat was proceeding to New Orleans, where they would then resolve what measures they ought to pursue and execute."*

The Spanish government was about to pursue its usual policy, by confiscating the General's boat and property, when a "merchant who had considerable influence there, and who was formerly acquainted with the General, represented to the Governor, Estevan Miro, that the measures taken by the Intendant would very probably give rise to disagreeable events; that the people of Kentucky were already exasperated at the conduct of the Spaniards, in seiz-

* Am. State Papers, XX, 704.

ing on the property of all those who navigate the Mississippi; and if this system was pursued, they would very probably, in spite of Congress and the Executive of the United States, obtain the navigation of the river by force, which they were well able to do." This had long been dreaded by the Spanish government. "Hints were likewise given that Wilkinson was a very popular man, who could influence the whole of that country, and probably that his sending a boat before him, with a wish that she might be seized, was but a snare, to influence the minds of the people on his return, and having brought them to the point he wished, induce them to appoint him their leader, and then like a torrent, spread over the country, and carry fire and desolation from one end of the province to the other." "Gov. Miro, a weak man, unacquainted with the American government," was alarmed at the prospect of provoking an irruption of Kentuckians, who seemed to have been regarded at New Orleans worse than they had been at Kaskaskia and St. Vincents, induced the Intendant to withdraw the guard from the boat; and a Mr. Patterson, who was the agent of the General, was permitted to take charge of the property on board, and to sell it free of duty." The General, on his arrival some time after, was informed of the obligation he lay under to the merchant, who had impressed the government with such an idea of his importance and influence abroad, waited on him, and in concert with him, formed a plan for their future operations." Such is the representation of Daniel Clark, Junior, whose uncle of the same name, an old merchant, domiciled at New Orleans, was the agent and alleged partner of Wilkinson. This latter character, the General denies, to have been authorised by him.* Clark was however fully acquainted with the government officers of Louisiana, and was very likely the merchant who interfered so adroitly with the Spanish governor. Wilkinson visited the governor, and in his interview with him, that he might support the Spanish idea of the inconsistency of trade with military dignity, by not appearing concerned in so trifling a business as a boat load of tobacco, hams and butter ; gave him to understand that the property "in the boat belonged to many citizens of Kentucky, who availing themselves of his return to the Atlantic States, by way of Orleans, wished to make a trial of the temper of this government, as he on his arrival, might inform his

* Memoirs. 2, 113. Am. State Papers, XX, 794.

own, what steps had been pursued under his eye; he acknowledged with gratitude the attention and respect manifested in the favor shown to his agent; but at the same time mentioned that he would not wish the governor to expose himself to the anger of his court, by refraining from seizing on the boat and cargo, as it was but a trifle, if such were the positive orders from court, and that he had not power to relax them according to circumstances. Convinced by this intercourse, that the General rather wished for an opportunity of embroiling affairs, than sought to avoid it, the Governor became more alarmed." This apprehension was increased by remembering the demand which had been made two or three years before by Commissioners from the State of Georgia, who had presented the claim of that State at Natchez, for her chartered limits to the Mississippi and to the parallel of 31° N., as established by the first treaty in 1783 with Great Britain. To avoid and appease this accumulating hostility against the possessions of Spain in Louisiana and Florida, and more particularly to conciliate the barbarians of the North, who seem still to inspire the descendants of the Spaniards with fears of unbridled ferocity, Gov. Miro concluded to grant the western people some limited opportunities of trade with New Orleans. "He made Wilkinson the offer of a permission to import, on his own account, to New Orleans, free of duty, all the productions of Kentucky." This conference finally ripened into an agreement "that the Governor should insure Wilkinson a market for all the flour and tobacco he might send, as in the event of an unfortunate shipment he would be ruined whilst endeavoring to do a service to Louisiana." "Flour was always wanted in New Orleans, and the king of Spain had given orders to purchase more tobacco for the supply of his manufactories at home, than Louisiana at that time produced; and which was paid for at about $9,50 per cwt," while in Kentucky it cost but $2 per cwt.

The profit may well be supposed to have been immense on a contract of this sort. "In consequence of this, the General appointed Daniel Clark, Senior, as his agent, and returned to the United States by way of *Charleston.*" On his arrival in Kentucky, he bought up all the produce he could collect, which he shipped and disposed of under this contract with Gov. Miro. "For some time all the trade for the Ohio was carried on in his name; a line from him sufficing to ensure the owner of the boat every privilege and protection he could desire." In addition to this tobacco contract,

which figured so conspicuously in the subsequent career of Gen. Wilkinson, he "made an arrangement with Gov. Miro for the introduction of several thousand families in that district on the Mississippi which is now called West Florida, or one to be laid out on the Arkansas and White rivers."* The General likewise obtained the privilege of furnishing a considerable annual supply of tobacco for the Mexican market. These contracts were openly avowed by the General, and publicly acted upon both in Kentucky and Louisiana; as was necessarily incident to contracts so palpable and incapable of disguise. They appeared to the author twenty years ago freed from corrupt and sinister views, by the testimony of Oliver Pollock, for twenty years the confidant of the Spanish governors of Louisiana. They seemed to be corroborated by the testimony of Gilbert Leonard, the treasurer of the province: the accounts current of the agents of Gen. Wilkinson at New Orleans and their own testimony.†

In 1789, Col. Ballinger delivered two mules loaded with money from New Orleans to Wilkinson, at Frankfort, Ky., "in the presence of many persons, whom he found there waiting his arrival;" they were tobacco planters from Lincoln county, Ky., and were there to receive their money for tobacco purchased of them by Wilkinson.

These contracts he, or any other private citizen, had the most indubitable right to engage in; they in fact opened a valuable market for the produce of this infant and interior community destitute of almost every other at that day. Indeed the frequent remittances of money from New Orleans to Wilkinson, by various ways suggested by the wilderness routes to this distant market, sometimes by the interior wilderness, or Natchez trace as it was termed; at other times by the river, *seemed* to be fairly and *honorably explained* by this tobacco speculation or contract, which was then utterly and entirely unimpeachable.

It is due to the author to declare that this subject was approaches by him with strong prepossessions against the purity and patriotism of the officer. But on sifting the voluminous mass of testimony procured by one military court and four committees of Congress added to that presented to a court of inquiry, and finding

* Wilkinson's Memoirs, vol. 2, 113, 115, 116, 197, 198, App. 1.

† Idem, App. 1, p. 2, and 117, 119, in the body of the volume.

the General acquitted by both courts and their sentence approved, (reluctantly approved in the last instance,) by two Presidents of the United States, the author was forced into the conclusion, that Gen. Wilkinson had been wronged by the suspicions and denunciations long and bitterly indulged against his honesty.

In the whole of these transactions, no foundation was *then* perceived for the shrewd surmise of Mr. Humphrey Marshall, an early and embittered enemy to the General, "that this tobacco contract was a mere cover for a pension, and the clandestine and dishonorable part was carefully concealed from all but coadjutors.*

To be continued.

ARTICLE III.

The Chemistry of Common Life.*

[Continued from p. 201.]

Look next at the food we eat. This is either of vegetable or of animal origin, and what modern chemistry tells us regarding it, is not only full of rich uses and of deep personal interest to every one of us, but is in itself truly marvelous. For, first, it abolishes the artificial distinction which mere sense has long established between animal food and vegetable food. The bread we simply bake is no longer quite different in use and quality from the flesh meats on which learned cooks exhaust their culinary skill. In bread we actually eat the substance of beef, and in bread and butter another form of that marbled flesh on which the eye of the epicure so placidly rests. In every variety of eatable plant there exists a proportion of what chemists call gluten, which is nearly identical with the muscular part of animal flesh, and a proportion also of fat, which is absolutely identical with the fat of animals. How unphilosophical and vain, therefore, the discipline which enjoins and makes a merit of abstaining from a substance when obtained from the body of an animal, and yet allows the use of the same substance when obtained from a vegetable!

Again, it shows us how curiously and by what admirable contrivances this food is prepared for man. Of carbon and nitrogen, such as float in the air, combined with the oxygen and hydrogen

* Marshall, 1, 183.

† From the Edinburgh Review, April, 1855: Art. VII. By James F. W. Johnston, M D., F. R. S. L. & E. Reader in Chemistry and Mineralogy in the University of Durham, 2 vols. post 8vo. Backwood: 1855.

gases already spoken of, the flesh and tissues of animals, and the solid portions of vegetables in great part consist. But of these only one, the oxygen, serves directly as food either to animal or to plant. The plant, as we have seen, sucks in at times oxygen by its leaves, and some of this oxygen, no doubt, contributes to the formation of its growing substance. The animal also draws in oxygen from the air by its lungs, and uses it directly to build up the tissues of its body. Thus both animals and plants, to a certain small extent, feed upon raw and unchanged oxygen. But neither plant nor animal can so consume or work up elementary or uncombined hydrogen, nitrogen, or carbon.

And here, in pursuing further our inquiries in regard to the way which they are respectively fed, a great difference at once presents itself between the plant and the animal; while, at the same time, a close and predetermined relation is seen evidently to exist between them.

It would be out of place here minutely to discuss the way in which plants and animals are nourished and sustained. It is sufficient to observe, that throughout what may be called dead or mineral nature there exist numerous, more or less simple, compounds of hydrogen, carbon, and nitrogen, which the plant is able to appropriate and employ in building up its growing substance. In the air, for example, there floats, as we have seen, an unfailing supply of carbonic acid. The same gas exists also in nearly all natural waters, and in the soil it is formed abundantly along with other comparatively simple combinations of carbon. All these the plant takes in by its leaves or by its roots, and from them, by a still obscure chemistry, extracts and makes its own the carbon they contain. So from water and ammonia it takes hydrogen—from nitric acid, ammonia, and other compounds, it takes nitrogen—and from the dead earthy matter of rocks and soils it selects and takes up the so-called incombustible, inorganic, or mineral ingredients which are necessary to the production of its perfect substance.

Of raw and simple materials like these, the animal can make nothing. Among them all, water is the only one it can with safety introduce into its stomach, and upon this it cannot live or be sustained. It is upon the results of the plant's labors, upon the substances of the plant's body, the new and usually more complex combinations which the living plant has manufactured from the simpler compounds which nature presents to it—that the herbivorous animal can alone support itself. Out of these, by wonderful methods, which we cannot explain, the plant forms starch, sugar, fat, and gluten, in all their varieties. So formed by the plant, the animal eats them; digests and changes them anew by a further mysterious chemistry which we are only now beginning faintly to follow; and finally fits them into appropriate places in its own body. Thus dead nature daily labors for the food of plants; the living plant daily labors for the food of animals. In the order of nature,

the plant must precede, and accompany, and unceasingly work for the animal. Alone, in the midst of physical nature, man and all other animals would be helpless, forlorn and short-lived.

Thus far, then, our science teaches us how different in relation to external things the life of plants is from the life of animals, and yet how closely and inseparably they are connected; how selected first from earth and air to form the plant, the same matter next builds up the more curious animal frame; and when that is worn out, or dies, returns again to earth and air, to run the same course anew. It thus shows one simple though grand idea pervading all life, embodied in the existing course of animated nature, yet by its manifold and complex details, leading us perpetually to admire the surpassing Workman from whose beneficent intellect it sprung.

And this plant, so essential to the life of all, what a miracle of chemical contrivance and chemical endowment it is! This little sporule, which the unassisted eye can scarcely discern, in which even by the aid of the microscope only an obscure structure can be observed—in this little germ how much discernment and concealed intention really rests! Placed in one condition, it remains unalterably the same for an indefinite period of time. If life is there, it is life in a state of quiescent torpor; quiescent yet watchful; a life of most profound repose. Placed in another condition, it seems at once to perceive the change. It swells and moves; the inner being bursts its shell, and comes forth; slowly and cautiously expands its growing length; feels, as it were, and examines every substance it touches; selects and rejects as suits its purpose; transforms each chemical body it takes up, and fits it for the place it is intended to occupy in the building about to be erected; and with materials so collected and prepared, it builds unceasingly, without wearying, and after a predetermined plan, green leaf, graceful twig, towering stem, blooming flower, luscious fruit, nourishing seed; till through the wonderful working, mechanical and chemical, of that hidden speck of life which so long slept in the microscopic germ, beauty and grace adorn the landscape, and inert useless matter has been abundantly converted into food for man. How slow and limited is our most advanced chemical knowledge, compared with that easy skill so richly given to this tiny seedlet!

Let us leave now those substances which are naturally necessary to human life, and consider for a little those things which by habit have become to modern nations a kind of second nature. In looking to modern life in this point of view, it appears widely distinguished not only from that of classic times, but even from that of the middle ages. Sugar, tea, coffee, cocoa, brandy, and tobacco, have all become familiar to Christian Europe and America within the last three hundred years. By the end of the fourteenth century, the cultivation of sugar had already become important in Western Asia and Northern Africa. Brought into Spain by the Moors, and cultivated in Andalusia, it was planted in the Madei-

ras by the Portuguese, who in 1520 possessed already sixty sugar manufactories in the island of St. Thomas alone. Thence it penetrated to America with the Spaniards, and became a staple article of Spanish American growth. Now, about 4500 millions of pounds of cane sugar, produced chiefly in America, pass yearly through the hands of European and American merchants, while in addition nearly 500 millions of the same kind of sugar are extracted from the beet-root in Northern Europe, and consumed in the different countries of our more eastern continent. It was not till the year 1659 that sugar refining began to be practised in England; and in 1700, the consumption of all England was only 20 millions of pounds. Now, we are not only the great refiners of Europe, but by far the largest consumers of sugar of every variety. In the year 1853, the consumption of the United Kingdom amounted to 818 millions of pounds of sugar, being at the rate of 28 lbs. a year—upwards of half a pound a week—for each of our population. What a change in the habits and modes of living of the people does this imply!

The introduction and rapid spread of the habit of using tea is still more recent and remarkable. The leaf was not brought to Europe till about the beginning of the seventeenth century. Sugar refineries were already in operation in England, when in 1664 the East India Company thought a couple of pounds of tea a not unroyal gift to present to the Queen of England. Now we consume at the rate of two pounds a head as the yearly allowance of every individual in the three kingdoms, and the total annual consumption of the United Kingdom is about 25,000 tons, or sixty millions of pounds! The use of this leaf is specially great in China and Thibet, in Russia, Holland, and England, and in the states and provinces of North America. The entire quantity consumed over this wide area, among about 500 millions of men, is roughly estimated at upwards of two thousand millions of pounds.

Coffee, though less a favorite among us than tea, is preferred to it by several of our continental neighbors. On the whole, perhaps the spread of coffee drinking during the last three hundred years has been more wonderful even than that of tea. It was not till the beginning of the fifteenth century that it was introduced into Arabia from Abyssinia. About the middle of the sixteenth, it began to be used in Constantinople, and in spite of the opposition of priests and Turkish doctors, it may now be considered as the staple minor luxury of Mahomedan life. In the middle of the seventeenth century (1652,) the first coffee-house was opened in London; and now, two hundred years after, the yearly consumption of coffee in the United Kingdom has reached the large amount of 35 millions of pounds. The quantity of the coffee bean actually bought and sold is about 600 millions of pounds every year, and it is in daily use among perhaps 120 millions of men!

We may pass briefly over cocoa, the ancient beverage and nutriment of the Mexican Incas, and still the favorite of modern times of Central America, of Italy, and of Spain. It is consumed to the extent of about 100 millions of pounds a year, and among 50 millions of men.

But what is the chemistry of all this new food and drink, unknown to that ancient life, the manners and features of which form so great a part of our study at school? What new craving in our common nature have they awakened, what old craving more agreeably satisfied? What is their physiological action, in short, and upon what chemical constituents does it depend? Why have entire nations so readily fallen into the new habits, and why do they so pertinaceously cling to them?

By her fireside, in her humble cottage, the lonely widow sits; the kettle simmers over the ruddy embers, and the blackened teapot on the hot brick prepares her evening drink. Her crust of bread is scanty; yet as she sips the warm beverage—little sweetened it may be, with the produce of the sugar cane—genial thoughts awaken in her mind; her cottage grows less dark and lonely, and comfort seems to enliven the ill-furnished cabin. When our suffering and wounded soldiers were brought down frozen and bleeding from the trenches before Sebastopol to the port of Balaklava, the most welcome relief to their sufferings was a pint of hot tea, which was happily provided for them. Whence this great solace to the weary and worn? Why out of scanty earnings does the ill-fed and lone one cheerfully pay for the seemingly unnourishing weekly ounce of tea? From what ever-open fountain does the daily comfort flow, which the tea-cup gently brings to the careworn and the weak?

The answer we are enabled to give to these questions is still very imperfect. Recent chemical and chemico-physiological researches have indeed thrown much interesting light on the nature, composition, and mode of action of the warm infusions we delight to drink, and we can so far satisfactorily account for many of their effects. We may expect our present views, however, to be materially modified by the results of future research.

[To be continued.]

ARTICLE IV.

Origin of Marion College.

AN EXTRACT FROM A FORTHCOMING WORK TO BE ENTITLED "TWENTY-FOUR YEARS' VIEW OF PALMYRA AND MARION COUNTY, IN MISSOURI."

By J. P. Rutter.

[Continued from page 168.]

Mr. Muldrow manifested very considerable diplomatic skill in conducting his agency for the college and himself—skill that would not have shamed an ambassador at the court of St. James or St. Cloud. — Going with a high recommendation from gentlemen of high standing, as Dr. Nelson and others, as a champion in the cause of education and religion, gained for him at once the friendship and confidence of the pious and the wealthy philanthropists of the eastern cities, and gave him access to their purse strings. We have already intimated that Mr. Muldrow was successful otherwise than in obtaining funds directly for the use of the college. It was a master stroke of policy in him to endavor to enlist as many eminent divines of the East in the cause of the college as he could; men of well known talents and of commanding influence; for thereby the standing and reputation of the college would be greatly enlarged and extended; their identity with it would attach to it their friends and all over whom they had influence. Hence the success of the college depended on the large amount of patronage that could be brought to operate in its favor; and the more prosperous the college should become, as a necessary consequence, the more prosperous would every one become whose interests were connected with it; it would enhance the price of lands in the country, &c. But then was there any reason to expect that those renowned and eminent men, reclining on the lap of ease, and surrounded with all the refinements and enjoyments that opulence and wealth can give in the principal cities of America, where they were venerated and almost idolized by their numerous and admiring flocks, would forego all those advantages of comfort and luxury, and go to the wilds of the West, and take up their abode in the wilderness where nought but privation and toil would be their portion? It was not to be expected; and none but William Muldrow, uneducated as he was, could have succeeded in inducing them to make the change. Although unlearned in classic literature, he was well posted up in the

less brilliant but equally useful science of human nature; and how he applied that knowledge acquired in the school of experience, will be seen in the sequel.

It is a saying that has passed into a proverb, and a true one, that death loves a shining mark. So did William Muldrow. And the assertion is no less true in reference to him than in the other case; for he was emphatically *death on great men*, as will also be seen in the sequel. Loving a shining mark, he passed by the common plodding novices in divinity, and men of moderate fortunes; for such he had no use whatever; but he approached men of mark, such as the Rev. Ezra Stiles Ely, D. D., of Philadelphia, Rev. James Gallaher, and others in different cities of the East; and Mr. John McKee, of Pittsburgh, who though not in *orders*, was a presbyterian, and would do to count—for he *counted* his money by the hundred thousand—and Mr. Muldrow well knew that if Mr. McKee was not in *orders*, his money at least would always be in *order*. At those gentlemen, therefore, of the *mental* power and the *metal* power, he made a dead set, and laid violent, vigorous and protracted siege. And such was the vigour of the onset, and such the generalship displayed in the charge and in the choice of weapons, that one after another of the ramparts gave way, until finally the citadel itself was stormed, and a capitulation at discretion was the result, and they submitted to be lead as captives, or as sheep to the slaughter by the unlettered William Muldrow to the far West. He was illustrating his meaning, when he said he was going to cut down big trees, for he did cut them down so low that there are now none so low as to do them reverence.

It is quite edifying to review the principal arguments or weapons of attack which were probably used by Mr. Muldrow, and which were no doubt the most effectual ones used, in inducing those eminent divines to emigrate and take professorships in, and become patrons of Marion College; and it illustrates our statement and remarks above, as to the motive power of self-interest, and of its operation on the hearts even of the best of men, when they are not conscious of its existence. Those Rev. Doctors of course were vastly pious men; we sincerely believe that some of them were so at any rate, and amongst that number we class Dr. Ely. They had the cause of religion much at heart, and felt great anxiety for its universal diffusion; they were no doubt burning with zeal to be useful to their race, and felt much of the self-sacrificing missionary

spirit of the age stirring within them; but then they found another law working in their members against that law of their minds, and threatening to bring them into bondage. They were of course ready to pursue the path of duty whenever it was made so manifestly plain that there could be no danger of erring. Error in matters of such momentous importance as those affecting the eternal interest of the souls of their fellow-men, could not be committed by men of their profession without their contracting guilt. Here, then, was a question to be settled in their minds, involving heavy responsibilities. How could it be their duty to forsake the dear people of their charges, from whom they had received pressing and *substantial* calls so long and so *loud*? Those people to whom they had so long and so successfully ministered in holy things, and who had so meekly and humbly received at their hands the bread of life; and who had ministered to them so liberally of their temporal things? How could they forsake them perhaps to be scattered and devoured by the adversary, and go to a heathenish, poor and foreign land? No, it could not be; they could not, without a dereliction of duty for sake a place and a people where the Lord had so plainly called them.

But brother Muldrow, as in duty bound, labored to convince them that they had mistaken notions of what their duty was, and he thought he could *demonstrate* to them so plainly, that they were in error, that the devotion of their hearts to the cause of Christian philanthropy would induce them to submit to the dictates of duty and of conscience, and yield their consent to go where duty leads.

Brother Muldrow is a man of facts and figures; it was his habit when he wanted to carry conviction to the minds of others, to sit down and figure out a calculation, and demonstrate by figures, which cannot lie, the truth of his propositions, and make his ideas so very plain, that a wayfaring man, though a fool, could not err. How much more certainly, therefore, could he convince those wise men of the East, who were so capable of seeing and appreciating anything capable of being seen; much more those which were so obviously plain, as he would demonstrate their duty to be.

We have already alluded to the plan of appropriating the surplus of the earnings of the students over and above what was sufficient to pay their board and tuition, to the payment of the professors in the college. This was a plan of Mr. Muldrow's devising; and this was explained to them without any diminution at least, in his pe-

culiar, emphatic and impressive manner of apparent correctness, and in his natural sanguineness of temperament, he depicted in glowing colors the great destiny of the college; the hundreds of students shortly to be within its walls; the large surplus of whose earnings thrown into the coffers of the comparatively few professors, would swell into an aggregate of such magnitude as to amount to a little fortune to each professor within itself, to say nothing of the regular salary to be paid them by the trustees. The men of God were not so dogmatical as not to be open to conviction; to be in the line of duty was their object, and though they had been of opinion that its dictates pointed to another course, yet they were not so far influenced by predelection for preconceived opinions as to suppose that there was no possibility of their being in error as well as others. Far be it from them to arrogate to themselves such a degree of perfection not enjoyed by the rest of mankind—but being both humble and sensible men, they were fully sensible of their fallability as poor blind erring mortals, liable to be lead astray at all times, by the arch enemy of all mankind, who continually goeth about like a roaring lion seeking whom he may devour, and especially ready to assail the faithful with all his fiery darts of temptation, where any great and useful plan for the amelioration, happiness, and more particularly for the salvation of mankind is contemplated; and being an enemy of all mankind, he would of course redouble his diligence to thwart it; and having power to transform himself into an angel of light, would take advantage of poor, sinful, short-sighted mortals, and inject into their minds false notions of duty, in order to turn them away from those important enterprizes which he is crafty and foreseeing enough to see, involves the success of the church militant. Even so he beguiled our first parents in Paradise by misrepresentations and lies. Yes, he is the father of lies, and it behooves us, thought they, to be very careful not to give heed to the seductions and suggestions of the evil one, and be led astray by the enemy of all good. They began to be thankful that the Lord had sent his servant, brother Muldrow, to open their eyes which had been blinded by the God of this world. And esteeming it one of the christian duties to make confession of error, when that error is manifest, and being now fully open to conviction, having surrendered all their prejudices, they exclaimed, "Go on, brother Muldrow, we are now prepared to listen to your proposition, and to appreciate any further arguments you may have

to present in its favor; all we want, is to be convinced what course it is our duty to pursue. We begin to see already that it is possible we may have been in error, and if fully satisfied of it, we will give it up, and follow where the openings of providence clearly point, and go where duty leads. And though our dear brethren here desire our stay amongst them, they do not understand the mysterious dispensations of Providence, and if you fully convince us beyond the possibility of a doubt, that it is our duty as christian ministers to go even to the heathenish and benighted West, where the people are perishing for lack of knowledge, each exclaimed, "hinder me not, ye much loved friends, I'll gladly go with thee.

Brother Muldrow therefore proceeded to offer some additional arguments to determine and settle them in the faith which he was glad to see, was now springing up within them. He proceeded to unfold to them other parts of his great plans, all in connection, having for their ultimate object the speedy conversion of the world. He described the great, the unparallelled advantages of Missouri, particularly spoke of the extreme fertility of her soil, the beauty of the landscapes, the advantages of the best navigable river in the world, the noble Mississippi which washes her eastern border; spoke of the vast quantity of unappropriated lands which any persons could appropriate to their own use, for the mere pittance of one dollar and twenty-five cents per acre ; drew a comparison between the very rich lands of Missouri and the very poor lands of the east; cited them to the enormous prices of their poor and worn-out lands, and enquired of them what they might not expect would be the value of the rich lands of Missouri, after a while when they shall become densely populated and dotted all over with colleges ; declared another part of his plan, by opening the most prolific leaf of all :—nothing less than the establishment of a college in every Congressional township of six miles square, the whole length and breadth of Upper Missouri — that they could form an association and enter all the land by whole townships ; establish a college in the center of each township; lay off a city all around each college; by their giving their influence in favor of such a magnificent project, and taking an interest in it, and becoming identified with it; the whole plan could be worked out. Their influence would soon attract enough persons, men of means, to make the college flourish. The flourishing of the colleges would give great value to the lands, which they could sell at high prices to settlers from the east,

men of wealth also devoted to the interest of the whole concern. The settlement of the land would give additional impetus to the prosperity of the colleges, and the cream of the whole affair would be that the population of the lands by wealthy men and the colleges together, would enable them to sell the lots in the cities at enormous prices, and thus they could educate enough pious young men for the gospel ministry, and send them out all over the world, and in a short time they would solve the problem of the possibility of the accomplishment of the prophecy, that "a nation shall be born in a day," and at the same time each of them could make more than a princely fortune, and live in the splendor and magnificence of eastern nabobs.

The closing remarks of Mr. Muldrow appeared to be conclusive; for they simultaneously exclaimed, Brother Muldrow, it is enough, we clearly see the opening door of Providence in which we will gladly enter to work in the vineyard of the Lord, and we are surprised that we should have remained blind so long. And their hearts overflowed with gratitude to God, that he had in mercy been pleased graciously to discover to them their error, and had in the usual course of his providence, which works by means ere since he made the world, sent his servant brother Muldrow to open their eyes, and turn them from darkness to light, and from the power and influence of Satan to serve the true and loving God; until in a transport of zealous enthusiasm, they each exclaimed, as if emulous who should take the lead in this glorious cause, "Speak, Lord, for thy servant heareth—here am I, Lord, send me." Brother Muldrow was no less overcome with devout gratitude and joy, that he had been made the means, the humble means of turning those great men from the error of their ways, and of putting them in the pathway of duty. He had done his duty, and duty always carries with it its own reward. The great Washington had given expression to the sentiment, that in the dispensations of Providence there is an inseparable union between duty and advantage, and he was about to realize its truth in a substantial way.

It was of course settled that the Rev. Gentlemen would with all speed prepare to emigrate to Marion county, Mo., the field of their future labors. They parted. Muldrow going on his way, rejoicing in his success; and they, after the first transport of gratitude to the Lord for his direction had subsided, calmed down into humble submission to his will, and sat down quietly to muse his praise.

As soon as possible the Rev. Doctors took up the line of march for Marion county, Mo. On their arrival here, there was general exultation on the acquisition of so many men of eminence to aid in building up the college, whose success was now considered certain, and that a proud era had dawned on the literary horizon, that a star was about to arise in the *West*, which by its reflex action was destined to reverse the course of oriental literature, and roll back a flood of lucid light to repay with interest the debt incurred by the reception of eastern science; and that from Marion College were to proceed lights of intelligence whose rays diverging in all directions would carry gospel light to illumine every dark corner of the eastern hemisphere. That Marion College was the nucleus, around which would spring up other colleges, to send forth other lights to light up other lands, until one universal halo of gospel glory would span the heavens. In short, it was hailed as the harbinger and precursor of the dawn of millenial day, when heathenish darkness will be lost in the refulgent blaze of the beams of the sun of righteousness; that from this college and other similar institutions to be speedily established, was to go forth an array of christian missionaries to illustrate the truth of that biblical prediction that "many shall run to and fro, and knowledge shall be increased, that the kingdom of darkness would soon totter to its fall, and be superceded by a kingdom in which dwelleth righteousness and peace.

ARTICLE V.

Review.—By Mann Butler.

COTTON IS KING: OR THE CULTURE OF COTTON AND ITS RELATIONS TO AGRICULTURE, MANUFACTURES AND COMMERCE, TO THE FREE COLORED PEOPLE AND THOSE WHO HOLD THAT SLAVERY IS IN ITSELF SINFUL. *By an American.* Cincinnati, 1855.

[Continued from p. 174.]

The second proposition drawn from this excellent treatise is the insuperable aversion of the free colored race to labor in articles most demanded by the markets of the world, namely, rice, sugar, cotton, and tobacco. This is established in the most convincing manner by the experience of the West Indies and the United States. It is the result of all the reports from missionaries and travellers

already referred to. Were it not so, why have Hayti and Jamaica been reduced by the emancipation of the slaves to their present miserable condition, little short of the barbarism, in which they were involved before the European discovery and settlement of these delicious and luxuriant islands? Can the presence of the white man, now disarmed of his power by law under a government, if anything hostile to him, amid the colored people, account for their degrading aversion to all the necessary labor of society? Hence the expensive introduction of Coolies, Chinese and Portuguese; yet with poor success. Can antipathy to the white capitalist and landlord, altho' ready to compensate the laborer for his work, overgo the inducements of high wages, and work too much at the pleasure of the operative, in a market understocked with labor? Can a spirit of mutual hatred and opposition between the races, formerly so disproportioned to each other in their legal condition, still array them against each other in spite of freedom and wages? Liberia may possibly give some answer to this enquiry. She is at present too short lived to authorize much practical reliance on her example. Why are not the free colored people found in the cheap farming lands of the West and South as freely as in the crowded purlieus of the towns? Yet all observation finds them clubed in the cities, living from hand to mouth, in the most dependent condition of humanity; thronging the most menial duties of town service? Were this not the disposition of the free colored race among us, why have their warmest and most enlightened friends exerted themselves so heroically, and yet with such circumscribed effect, to procure the establishment of Liberia, and to place it under the exclusive government of the black men?

How feebly the colonization society have succeeded in its noble and philanthropic labors, needs but little exposition. It is too little consolatory to its friends to require remark from me. My purpose is not to depreciate that noble scheme of generous humanity to a down trodden race, but only to show the repugnance of the free colored race among us, to perform the indispensable labors of cultivated and civilized life. They prize with true barbarian instinct, present ease above future enlarged enjoyment. They prefer the spontaneous and simple products of a most luxuriant soil, to all the heightened enjoyments of industrious and civilized life. It is the old preference of the savage for his woods and his appetites, rather than labor and forbear, in order to obtain the refinement

of higher cultivation, as the rewards of his providence and foresight.

But we now come to one of the most important and interesting views of our author, worthy of the strictest attention and regard. It is "the present relations of American slavery to the industrial interests of our own country, to the demands of commerce, and to the present political crisis." This is indeed a grand aspect of the subject. There are two great parties to these relations, around which all the others are gathered in subordinate attitudes. The first are the cotton manufacturers, and the second are the cotton planters. The former aim at the monopoly of the world market for their respective countries of the cotton manufactures; the latter aim at the supply of the cotton for these manufactures wherever they exist. The manufacturing interest wants low cotton and low wages for its workmen; the planting interest wants lands, slaves, machinery, and provisions at the lowest possible rates. In this competition spreading itself over the whole earth, wherever trade has winged its wide flight, let us see how the various classes and interests of society arrange themselves around those two leading interests. And first, let us see how this great market has gradually developed itself in the history of the world. It may be best exhibited in the form of tables, as the author has most laboriously done in his appendix, at greater length than this review can represent the matter; but in a manner worthy of the utmost regard of the curious reader.

British consumption and import of Cotton from 1641 to 1853.

1641 Cotton manufactures first named in English history.

	Total imports in lbs.
1697	1,976,359
1771 to 1775 average	6,766,613
1791	28,706,675
1794	24,358,567
1796	32,126,357
1798	31,880,641
1806	58,176,283

Total consumption.

1818	109,802,000
1853	646,376,848

U. S. annual exports of Cotton to Great Britain and Europe generally.

1747–48, 7 bags or bales of Cotton were shipped from Charleston, S. C., to England.

1770, 2000 lbs. were shipped to same

1771, 71 bags shipped and seized in England on the ground that America could not produce so much.

1791, 189,316 lbs.

1794, cotton of U. S., 8,000,000 lbs. Export, 1,601,760 lbs.

1796, Do. 10.000,000 lbs. Export, 6,100,000 lbs.

1798, 9,330 (1st import from India, 1,622,000 lbs.

1806, 37,500,000; whole cotton crop of U. States, 80,000,000.

1818, 92,500,000; total crop of the U.S., 125,000,000 lbs.

1853, 1,111,570,370; whole cotton crop U. S., 1,600,000,000 lbs.

In this last year Great Britain imported from India, 180,431,496 lbs.
" " " " " U. S., 768,596,498 "
" " United States exported to Europe, 335,271,064 "

Thus has the cotton market of the United States risen from zero, in 1747–8, to 1,600,000,000 lbs., or 4 millions of bales (400 lbs. to the bale,) in 1853. In this period of a century, the export of cotton has risen to a value of $109,496,404; our own consumption has amounted to $18,543,596. Our importations of cotton manufactures amounted in 1853 to $27,675,000. This too, when our whole exports, except cotton, only amounted to 33,809,126; thus trebling the export of all other articles of foreign trade. The cotton crop then is worth to the foreign market $109,496,404, which added to our domestic consumption, consisting of $53,100,-290 of home supplies, and $26,477,450 foreign, making $79,-578,240, and forms a grand total of $189,074,644, as the moneyed value of this production in the commerce of the United States.

Nor is the article of cotton, mighty as it is, the only interest in slave labor which the United States possess. They raise, according to the second table of our author, ingeniously and industriously deduced from the Patent Office Report, Abstract of Census, Rep. Com. Nav., &c., and formed into the following table:

Cattle and their products,	$400,000,000
Horses and mules	300,000,000
Sheep and wool	46,000,000
Hogs and products	160,000,000
Indian corn and meal	240,000,000
Wheat, Flour	100,000,000
Rye, Meal	12,600,000
Peas and beans	54,144,874
Potatoes	42,400,000
Apples, (1850)	7,723,326
Hay, 1850, $10 per ton	138,385,790
Hemp	4,272,500
Sugar cane and maple	36,900,000
Rice	8,750,000
Tobacco	19,900,000
Cotton	128,000,000

These items swell their amount to a grand total of $1,699,076,-490 in value; of which our own export is, exclusive of $120,775,-723 for cotton and tobacco, only $33,809,126; but which added to the value of cotton and tobacco exported, becomes $154,584,-849.

In these massy numbers there may be millions amiss without affecting the general result; that depends on the relative value of the exports of free labor and slave. This constitutes the balance of trade which is the gist of the argument for the purpose in hand.

The ratio may be stated in another form; slave labor may be represented by $120 millions, and free labor by $33 millions; that is the value of the produce of slave labor exported is nearly quadruple that of free labor exports.

Our account of indebtedness to slave labor is not yet closed. "Our imports of coffee, tobacco, sugar, and molasses, for 1853, amounted in value to $38,479,000; of which the hand of the slave in Brazil and Cuba mainly supplied to the value of $34,561,000.* Still these are but four foreign items of the great account between slave labor and free, exhibited by the trade of the United States. "Of the domestic grown tobacco, valued at $19,975,000, of which we retain nearly one half, the slave States produced to the value of $16,878,000; of domestic rice, the product of the South, we consume $7, 092,000; of domestic slave grown sugar and molasses we take for home consumption to the value of $34,799,000, making our grocery account with *domestic slavery*, foot up the sum of $50,449,000,† our whole indebtedness to slavery foreign and domestic, for these four commodities, after deducting two millions of re-exports, amounts to $82,607,000. By adding the value of the foreign and domestic cotton fabrics consumed annually in the United States to the annual cost of the groceries which they use, our total indebtedness for articles of slave labor origin, will be found swelling up to the enormous sum of $162,185,240."†

This is the *massy* incorporation of slave labor in the trade of the United States. Can madness be carried to an extreme, that should contemplate its destruction by abolishing at once the slavery of the negroes employed in its production? Or in any other manner, destroying the market for the exchange of such enormous masses of human labor, for the clothing, the food and the comforts of mankind.

Were this abolition to be followed by an immediate elevation of the freed race, contrary as it would be to all the laws of human progress, still such a social revolution and disorganization might well demand the soberest consideration, the calmest deliberation from its advocates. But when all experience which has hitherto exhibited its light, shows that the success of such abolition is to be followed by every species of social desolation, murder and massacre, the return of society to primitive ignorance and barbarity, how

* Page 51.
† P. 52.

can we, with our tolerance for the infatuation of the human mind, brand the conduct with sufficient reprobation? What substitute shall $133 millions of foreign exports of slave labor find? By what means shall the export of $33 millions of free labor in provisions be raised to meet an import of $250 millions of foreign commerce? Is it not sufficient to state these mighty questions pregnant with the very life and subsistence of society, without following them into the frightful consequences of mutinous laborers, refusing to work, and ripe for every species of social disorder and violence? Must the bloody details of Haytian massacre and revolution, of the barbarism of the Jamaica and Demarara negroes be reiterated in all their horrors, before our countrymen can be brought to their senses?

And is this enormous product of slave labor supported by itself? Nothing farther from the truth; it lives on the products of free labor in provisions, in mechanic arts, in manufactured cotton, and in shipping. The farmers of the North and the West furnish the pork, the flour, the corn, the horses, mules and much of the beef, to feed and help the slave in his work; the mechanics of New England make and frame the cotton gins and sugarhouse machinery, cast at northern foundries, to complete the products of slave labor; the manufacturers of the East and Europe furnish the cotton fabrics, to clothe the slave and his master, which their seamen bring to southern ports in their own shipping built at the North. *How, in the absense of slave labor, shall this great social vacuum be filled?* Let the laborers, the mechanics, the manufacturers, the sailors, the ship carpenters, and the merchants of the free States ponder upon the answer to this enquiry.

These various classes spread over the globe, form the army of agents employed in the service of *King Cotton.* They all pant for his employment, eat the sugar and rice, drink the coffee, chew the tobacco, and wear the cotton, which this opulent monarch furnishes from his inexhaustible treasures. Let these various classes clean their hands of any participation with the owners of slaves by utterly refusing to consume the enjoyments and luxuries produced by them, though they have augmented the mass of social happiness, and have made society more worthy of enjoyment, before they become abolitionists and brand the slave holder with their reprobation. Shall it be a question, whether we shall continue to wear cotton fabrics, drink coffee, sweeten anything with sugar or molasses, smoke, chew or snuff tobacco, eat rice, or in any way

directly or indirectly connect ourselves with the consumption of slave products? With whom then shall we deal? Not with any people within the northern tropic or near it; with none of the States of our own confederacy south of Pennsylvania and the Ohio river. And will not our philanthropists preserve their consistency by looking into the condition of the *serfs* of northern Europe, the *Peons* of Mexico, and in fine, the oppressed of all nations and conditions of men? Will not these modern *Puritans*, (I speak it not in disdain of their heroic predecessors, to whom honor enough can never be given,) in peace leave a country which they deem contaminated by so direful an evil as domestic slavery, or seclude themselves in another paradise of their own, with angels armed with flaming swords at its gates, to keep off the impure, exclaiming with the priests of antiquity, "Procul, procul, este Profani!" Avanut ye impious!

ARTICLE VI.

Para.

From the Exploration of the Valley of the Amazon, made under direction of the Navy Department, by WM. LEWIS HERNDON and LARDNER GIBBON, Lieutenants United States Navy. Part I. By Lieut. HERNDON. Published by order of the Senate United States.

The city of *Santa Maria de Belem do Grao Para*, founded by *Francisco Caldeira do Castello Branco*, in the year 1616, is situated on a low elbow of land at the junction of the river Guama with the river Para, and at a distance of about eighty miles from the sea.

A ship generally requires three tides, which run with a velocity of about four miles to the hour, to reach the sea from the city.

Para is not fortified, either by land or water. There is a very small and inefficient fort situated on an island about five miles below the city; but it is only armed with a few ill-conditioned field-pieces, which do not command the channel. There is also a small battery in the city near the point of junction of the two rivers; but there are no guns mounted, and its garrison could be easily driven out by musketry from the towers of the catheral.

The harbor is a fine one; it is made by the long island of Oncas in front, and at two miles distance, with some smaller ones further down the river. There is an abundance of water, and ships of any size may lie within one hundred and fifty yards of the shore. There

is a good landing-place for boats and lighters at the custom-house wharf; and at half tide at the stone wharf, some five hundred yards above;

The corporation was engaged, during my stay, in building a strong stone sea-wall all along in front of the town. This will make a new wide street on the water-front, and prevent smuggling. Formerly, canoes, at high stages of the river, would land cargoes surreptitiously in the very cellars of the warehouses situated on the river.

The city is divided into the freguezias, or parishes, of Se and Campina. Nine other freguezias are included in the *municipio* of the capital; but many of these are leagues distant, and should not geographically be considered as belonging to the city, or their population be numbered in connexion with it.

The population of the city proper numbered, in 1848, (the last statistical account I have, and which I think would differ very little from a census taken at this time,) nine thousand two hundred and eighty-four free persons, and four thousand seven hundred and twenty-six slaves. The number of inhabited houses was two thousand four hundred and eighteen; of births, seven hundred and eighty-five; of marriages, ninety-eight; of deaths, three hundred and seventy-five; and of resident foreigners, seven hundred and eighty-four.

Para was a remarkably healthy place, and entirely free from epidemics of any kind, until February, 1850, when the yellow fever was taken there by a vessel from Pernambuco. It was originally brought from the coast of Africa to Bahia, and spread thence along the coast. The greatest malignancy of the disease was during the month of April, when it carried off from twenty to twenty-five a day.

About the same time the next year, (the fever being much diminished,) the small-pox broke out with great violence. About twenty-five per cent. of the population died from the two diseases. I imagine that the city will now never be entirely free from either; and the filthy condition in which the low tide leaves the slips, in which lie the small trading craft, must be a fruitful source of malaria, and an ever-exciting cause of epidemic.

The crews of these vessels, with their families, generally live in them. They are consequently crowded; and, when the tide is out, they lie on their sides, imbedded in a mass of refuse animal and vegetable matter, rotting and festering under a burning sun.

Para, however, is an agreeable place of residence, and has a delightful climate. The sun is hot till about noon, when the sea breeze comes in, bringing clouds, with rain, thunder and lightning, which cool and purify the atmosphere, and wash the streets of the city. The afternoon and evening are then delicious. This was invariable during my stay of a month.

The rich vegetable productions of the country enhance much the beauty of the city. In nearly all the gardens grow the beautiful miriti palm, the cabbage palm, the cocoa-nut, the cinnamon, the bread-fruit tree, and rich green vines of black pepper. The rapidity of vegetable growth here is wonderful. Streets opened six months ago, in the suburbs of the city, are now filled up with bushes of the *stramonium*, or Jamestown weed, of full six feet in height. There are a number of almond trees in various parts of the town, which are very ornamental. These thees throw out horizontal branches, encircling the trunk at intervals of five or six feet, the lowest circle being the largest, so that shey resemble in shape a Norfolk pine. Mr. Norris and I thought it remarkable that in a row of these trees planted before a house, or line of houses, those nearest the door were invariably the farthest advanced in growth. This we particularly remarked in the case of a row planted before the barracks, in two parts of the city. The tree under which the sentinel stood, in both cases, was the largest of the row.

We saw, in a walk in the suburbs of the town, what we thought to be a palm tree growing out of the crotch of a tree of a different species; but, upon examination, it appeared that the tree, out of which the palm seemed growing, was a creeper, which, embracing the palm near the ground, covered its trunk entirely for fifteen or twenty feet, and then threw off large branches on each side. It may seem strange to call that a creeper, which had branches of at least ten inches in diameter; but so it was. It is called in Cuba the parricide tree, because it invariably kills the tree that supports it. (*Har. Mag.*, *January*, 1853.)

The most picturesque object, however, in Para was the ruins of an old opera house near the palace. The luxuriant vegetation of the country has seized upon it, and it presents pillar, arch, and cornice of the most vivid and beautiful green.

The society of Para is also agreeable. The men, I am sorry to say, seem to be above work. Most of them are *Hidalgos*, or gentlemen; and nearly all are in the employ of the government, with exceedingly small salaries. In the whole city of Para, I am told, there are not a dozen Brazilians engaged in trade of any kind. The women are simple, frank, and engaging in their manners, and very fond of evening parties and dancing. I attended a ball, which is given monthly by a society of gentlemen, and was much pleased at the good taste exhibited it its management. Full dress was forbidden. No one was permitted to appear in diamonds; and the consequence was that all the pretty girls of the merely respectable classes, as well as of the rich, were gathered together, and had a merry time of it.

But the principal charm of Para, as of all other tropical places, is the *Dolce far niente*. Men, in these countries, are not ambitious. They are not annoyed, as the more masculine people of colder climates are, to see their neighbors going ahead of them.

They are contented to live, and to enjoy, without labor, the fruits which the earth spontaneously offers; and, I imagine, in the majority of cases, if a Brazilian has enough food, of even the commonest quality, to support life, coffee or tea to drink, cigars to smoke, and a hammock to lie in, that he will be perfectly contented.

This, of course, is the effect of climate. There was a time when the Portuguese nation, in maritime and scientific discoveries—in daring explorations—in successful colonization—in arts and arms—was inferior to no other in proportion to its strength; and I have very little doubt but that the bold and ambitious Englishman, the spirited and cosmopolitan Frenchman, and the hardy, persevering, scheming American, who likes little that any should go ahead of him, would alike, in the course of time, yield to the relaxing influence of a climate that forbids him to labor, and to the charm of a state of things where life may be supported without the necessity of labor.

To make, then, the rich and varied productions of this country available for commercial purposes, and to satisfy the artificial wants of man, it is necessary that labor should be compulsory. To Brazil and her political economists belongs the task of investigation, and of deciding how, and by what method, this shall be brought about.

The common sentiment of the civilized world is against the renewal of the African slave trade; therefore must Brazil turn elsewhere for the compulsory labor necessary to cultivate her lands. Her Indians will not work. Like the *llama* of Peru, they will die sooner than do more than is necessary for the support of their being. I am under the impression that, were Brazil to throw off a causeless jealousy, and a puerile fear of our people, and invite settlers to the Valley of the Amazon, there might be found, among our Southern planters, men, who, looking with apprehension, (if not for themselves, at least for their children,) to the state of affairs as regards slavery at home, would, under sufficient guarantees, remove their slaves to that country, cultivate its lands, draw out its resources, and prodigiously augment the power and wealth of Brazil.

The negro slave seems very happy in Brazil. This is remarked by all foreigners; and many times in Para was a group of merry, chattering, happy-looking black women, bringing their baskets of washed clothes from the spring, pointed out to me, that I might notice the evils of slavery. The owners of male slaves in Para generally require from each four or five testoons a day, (twenty testoons make a dollar,) and leave him free to get it as he can. The slaves organize themselves into bands or companies, elect their captain, who directs and superintends their work, and contract with a certain number of mercantile houses to do their porterage. The gang which does the porterage for Mr. Norris, and for nearly

all the English and American houses, numbers forty. Each man is paid about three cents to fill a bag or box, and four cents to carry it to the wharf and put it aboard the lighter. It costs from one hundred and fifty to two hundred dollars to discharge and load a moderate-sized ship.

I have frequently seen these gangs of negroes carrying cocoa to the wharf. They were always chattering and singing merrily, and would stop every few minutes to execute a kind of dance with the bags on their heads, thus doubling their work. When the load was deposited, the captain, who does no work himself unless his gang is pressed, arrays them in military fashion, and marches them back for another load.

For carrying barrels, or other bulky and heavy articles of merchandise, there are trucks, drawn by oxen.

Churches are large and abundant in Para. The cathedral is one of the finest churches in Brazil. Its *personnel*, consisting of dignitaries, (*dignidades*,) canons, chorists, and other employés, numbers seventy-four.

A large convent of the Jesuits, near the cathedral, having a very ornate and pretty chapel attached, is now used as a bishop's palace, and a theologigal seminary. The officers of the seminary are a rector, a vice-rector, and six professors; its students number one hundred and fifteen; its rental is about five thousand dollars, of which one thousand is given from the provincial treasury; and it teaches Latin, the languages, philosophy, theology, history, geography, and vocal and instrumental music.

There are but two convents in Para — one of the order of St. Anthony, and one of Shod Carmelites.

I attended the celebration of the festival of the Holy Cross, in the chapel of the convent of the Carmelites. There was a very large, well-dressed congregation, and the church was redolent of the fragrance of sweet-scented herbs, strewn upon the floor. There were no good pictures in the church, but the candlesticks and other ornaments of the altar were very massive and rich. In the insurrection of the Cabanos the church property was spared; but I am told that, though they have preserved their ornaments, the priests have managed their property injudiciously, and are not now so rich in slaves and real estate as formerly.

I imagine that the priesthood in Brazil, though quite as intelligent and able as their brethren of Peru, have not so great an influence in society here as there. This is seen in an anecdote told me of a rigid *Chefe de Policia*, who fordid the clergy from burying one of their dignitaries in the body of the church during the prevalence of the yellow fever; but compelled them, much against their will, to deposit the body in the public cemetery, and accompanied the funeral procession on horseback to see that his orders were obeyed. It is also seen in the fact that the provincial assembly holds its sessions in a wing of the Carmelite convent, and that

a part of the church of she Merced is turned into a custom-house and a barracks.

There are forty-one public primary schools in the province, educating one thousand and eighty-seven pupils. This gives a proportion of one for every one hundred and six free persons in the province. Each pupil costs the State about seven and a half dollars.

In the four schools of Latin, one person is educated in every five hundred and sixty-four, at a cost of twenty-six dollars.

In the college of Para, called "*Lyceo da Capital*," the proportion educated is one to two hundred and eleven, at a cost of sixty-two dollars.

There are two capital institutions of instruction in Para — one for the education of poor boys as mechanics, who are compelled to pay for their education in labor for the State; and the other for the instruction in the practical business of life of orphan and destitue girls. I think that this education is compulsory, and that the State seizes upon vagabond boys and destitute girls for these institutions. There is also another school of *educandos* for the army.

The province also maintains three young men for the purpose of complete education in some of the colleges of Europe.

There are several hospitals and charitable institutions in the city, among which is a very singular one. This is a place for the reception of foundlings maintained by the city. A cylinder, with a receptacle in it sufficiently large for the reception of a baby, turns upon an axis in a window; any one may come under cover of of night, deposit a child in the cylinder, turn the mouth of the receptacle in, and walk away without being seen. Nurses are provided to take charge of the foundling.

Though I pumped all my acquaintances, I could get no statistics concerning this institution, or whether it was thought to be beneficial or not. I judge, however, that for this country it is. Public opinion here does not condemn, or at least treats very leniently, the sins of fornication and adultery. This institution, therefore, while it would tend to lessen the crime of infanticide, would not encourage the above mentioned sins by concealment. In speaking thus, I do not at all allude to the higher classes of Brazil.

The executive and legislative government of the province is in a president and four vice presidents, appointed by the Crown, and in a legislative assembly.

The provincial assembly meets once a year, in the month of May. The length of its sessions is determined by itself. It elects its own presiding officer. It is a very inefficient representative system. The people in the districts elect electors, who choose delegates and *suplentes*, or proxies. Most of these proxies belong to the city; they have little knowledge of the wants, and no sympathy with the feelings, of the people they represent. Each delegate (at leas

this is the case in the province of Amazonas,) is allowed one dollar and sixty six cents per diem; and the salary of the President of that province is one thousand six hundred and sixty-six dollars and sixty-six cents; it is probable that the salary of the President of Para is greater.

The police of the province is under the direction of a *chefe de policia*, with delegados for each comarca, and sub-delegados for the termos and municipios. These officers issue and visée passports, and the traveller should always call upon them first.

The judiciary consists of *Juizes de direito;* three for the comarca of the capital, and one for each of the other comarcas of the province, besides *Juizes municipaès*, and *de orfaôs*. The Juiz de direito holds a singular office, and exercises extraordinary powers; besides being the judge, he presides over the jury, and has a vote in it. An appeal lies from his court, both by himself and the defendant, to a higher court, called the Court of *Relacao*, which sits in Maranham and has jurisdiction over the two provinces of Maranham and Para. There are three or four such courts in the empire, and an appeal lies from them to the Supreme Court at Rio Janeiro.

Persons complain bitterly of the delay and vexations in the administration of justice. I have heard of cases of criminals confined in jail for years, both in Peru and Brazil, waiting for trial. It is said also, though I know nothing of this, that the judges are very open to bribery. I think, however, that this is likely to be the case, from the entire inadequacy of the salaries generally paid by the government.

I believe that the Brazilian code is mild and humane, and I am sure that it is humanely administered. The Brazilians have what I conceive to be a very proper horror of taking life judicially. They do not shrink in battle, and sudden anger and jealousy will readily induce them to kill; but I imagine the instances of capital punishment are very rare in Brazil.

The police of the city is excellent, but, except to take up a drunken foreign sailor occasionally, it has nothing to do. Crime—such as violence, wrong, stealing, drunkenness, &c.—is very rare in Para. Probably the people are too lazy to be bad.

The province covers an area of about 360,000 square miles, and has a population of 129,828 free persons, with 33,552 slaves.

Much as it needs population, it has suffered, from time to time, considerable drainage. It is calculated that from ten to twelve thousand persons were killed by the insurrection of the Cabanos, in 1835. Since that time ten thousand have been drawn from it as soldiers for the southern wars; and the yellow fever and small-pox, in one year, carried off between four and five thousand more.

The war of the Cabanos was a servile insurrection, instigated and headed by a few turbulent and ambitious men. The ostensible

cause was dissatisfaction with the provincial government. The real cause seems to have been hatred of the Portuguese.

Charles Jenks Smith, then consul at Para, writes to the Hon. John Forsyth, under date of January 20, 1835:

"After the happy conclusion of the war on the Acara, this city has remained in a state of perfect tranquility, until the morning of the 7th instant, when a popular revolution broke out among the troops, which has resulted in an entire change of the government of this province. The President and the *General-das-Armas* were both assassinated at the palace, by the soldiers there stationed, between the hours of 4 and 5 a. m. Inglis, Commandant of the *Defensora* corvette, and Captain of the port, was also killed in passing from his dwelling to his ship. The subaltern commissioned officers on duty were shot down by the soldiery, who, placing themselves under the command of a sergeant named Gomez, took possession of all the military posts in the city.

"About fifty prisoners were then set at liberty, who, in a body, proceeded to a part of the city called Porto de Sol, and commenced an indiscriminate massacre of all the Portuguese they could find in that neighborhood. In this manner about twenty respectable shop-keepers and others lost their lives.

"Guards were stationed along the whole line of the shore, to prevent any person from embarking; and several Portuguese were shot in making the attempt to escape."

A new President and General-das-Armas were proclaimed; but they quarrelled very soon. The President, named Melchor, was taken prisoner and murdered by his guards; and *Vinagre*, the General-das Armas, took upon himself the government. In the conflicts incident to this change about two hundred persons were killed. The persons and property of all foreigners, except Portuguese, were respected. Many of these were insulted, and some killed.

Vinagre held the city, in spite of several attempts of Brazilian men-of-war to drive him out, until the 21st June, when, upon the arrival of a newly appointed President, he evacuated it. During these attempts the British corvettes *Racehorse* and *Despatch*, a Portuguese corvette, and two French brigs-of-war, offered their services for protection to the American consul.

On the 4th of August, Vinagre again broke into the city. The English and Portuguese vessels landed their marines; but, disgusted with the conduct of the President, withdrew them almost immediately. The fire of the Racehorse, however, defeated Vinagre's attempt to get hold of the artillery belonging to the city.

On the 23d of August, the President abandoned the city to the rebels, whose leader exerted himself to save foreign life and property, permitting the foreigners to land from their vessels, and take from the custom-house and their own stores the principal part of their effects.

The rebels held the city until the 13th of May, 1836, when they were finally driven out by the legal authorities, backed by a large force from Rio Janeiro. They held, however, most of the towns on the river above Para till late in the year 1837. They did immense mischief, putting many whites to death with unheard of barbarity, and destroying their crops and cattle. The province was thus put back many years. I think that the causes which gave rise to that insurrection still exist; and I believe that a designing and able man could readily induce the tapuios to rise upon their patrons. The far-seeing and patriotic President Coelho always saw the danger, and labored earnestly for the passage of efficient laws for the government of the body of tapuios, and for the proper organization of the military force of the province. His efforts in the latter case have been successful, and, very lately, a good militia system has been established.

The city of Para is supplied with its beef from the great island of Marajo, which is situated immediately in the mouth of the Amazon. This island has a superficial extent of about ten thousand square miles, and is a great grazing country. Cattle were first introduced into it from the Cape de Verde Islands, in 1644. They increased with great rapidity, and government soon drew a considerable revenue from its tax on cattle.

Before the year 1824, a good horse might have been bought in Marajo for a dollar; but about that time a great and infectious disease broke out among the horses, and swept away vast numbers; so that Marajo is now dependent upon Ceara and the provinces to the southward for its supply of horses. I heard that the appearance of this disease was caused by the fact that an individual having bought the right from the government to kill ten thousand mares on the island, actually killed a great many more; and the carcasses, being left to rot upon the plains, poisoned the grass and bred the pestilence, which swept off nearly all.

Other accounts state that the disease came from about Santarem and Lago Grande, where it first attacked the dogs; then the *capiuaras*, or river-hogs; then the alligators; and, finally, the horses. It attacks the back and loins; so that the animal loses the use of his hind-legs. Government sent a young man to France to study farriery, in hopes to arrest the disease; but the measure was productive of no good results. The disease still continues; and, ten years ago, appeared for the first time in the island of *Mexiana*, not far from Marajo. Within the last year, nearly all the horses on this island have died. I believe it has never attacked the horned cattle.

Beeves are brought from Marajo to Para in small vessels, fitted for the purpose. They are frequently a week on the passage; and all this time they are on very short allowance of food and water; so that, when they arrive, they may almost be seen through.

The butchering and selling are all done under municipal direction; and the price of beef is regulated by law. This is about five and a half cents the pound. Gentlemen maintain horses and milch cows in Para, or its neighborhood. These are fed generally on American hay. Some small quantity of grass is to be had from the *roçinhas*, or small farms, in the environs of the city; and a tolerably good food for cattle is had from a fine flour, found between the chaff and grain of rice. This is called *muinha* (*quim, in Maranham,*) and is very extensively used, mixed with the chaff.

The island of Marajo is very much cut up with creeks, which, in the rainy season, overflow the low land, and form marshes, which are the graves of a great number of cattle. The cattle, at this season, are also crowded together on the knolls of land that are above the waters in the inundation, and many of them fall a prey to the ounces, which abound on the island. These creeks are also filled with alligators. Mr. Smith, former consul at Para, told me that he had seen the carcass of one there which was thirty feet long.

I saw a number of curious and beautiful animals in Para. Mr. Norris had some electric eels, and a pair of large and beautiful anacondas. I had never heard a serpent hiss before I heard these, and the sound filled me with disgust and dread. The noise was very like the letting off of steam at a distance. The extreme quickness and violence with which they darted from their coil [lacerating their mouths against the wire work of the cage] was sufficiently trying to a nervous man; and few could help starting back when it occurred. These animals measured about eighteen feet in length, and the skin, which they shed nearly every month, measured eighteen inches in circumference. They seldom ate; a chicken or a rat was given to them when it was convenient. They killed their food by crushing it between their head and a fold of their body, and swallowed it with deliberation. I imagine that they would live entirely without food for six months.

Many gentlemen had tigers about their establishments. They were docile, and playful in their intercourse with acquaintances; but they were generally kept chained for fear of injury to strangers. Their play, too, was not very gentle, for their claws could scarcely touch without leaving a mark.

Mr. Pond, an American, had a pair of black tigers, that were the most beautiful animals I have ever seen. The ground color of the body was a very dark maroon, but it was so thickly covered with black spots that, to a casual glance, the animal appeared coal black. The brilliancy of the color—the savage glare of the eye—the formidable appearance of their tusks and claws—and their evidently enormous strength—gave them a very imposing appearance. They were not so large as the Bengal tiger; but much larger than the common ounce. They were bred in Para from cubs.

Electric eels are found in great numbers in the creeks and ditches about Para. The largest I have seen was about four inches in diameter, and five feet in length. Their shock, to me, was unpleasant, but not painful. Some persons, however, are much more susceptible than others. Captain Lee, of the *Dolphin*, could not feel at all the shock of an eel, which affected a lady so strongly as to cause her to reel, and nearly fall. Animals seem more powerfully affected than men. Mr. Norris told me that he had seen a horse drinking out of a tub, in which was one of these eels, jerked entirely off his feet. It may be that the electric shock was communicated directly to the stomach by means of the water he was swallowing; but Humboldt gives a very interesting account of the manner of taking these eels by means of horses, which shows that they are peculiarly susceptible to the shock. He says:

"Impatient of waiting, and having obtained very uncertain results from an electrical eel that had been brought to us alive, but much enfeebled, we repaired to the *cano de Bera* to make our experiments, in the open air, on the borders of the water itself. To catch the gymnoti with nets is very difficult, on account of the extreme agility of the fish, which bury themselves in the mud like serpents. We would not employ the barbasco. These means would have enfeebled the gymnoti. The Indians, therefore, told us that they would 'fish with horses,' '*embarbascar con cavallos.*' We found it difficult to form an idea of this extraordinary manner of fishing; but we soon saw our guides return from the *Savannah*, which they had been scouring for wild horses and mules. They brought about thirty with them, which they forced to enter the pool.

"The extraordinary noise caused by the horses' hoofs makes the fish issue from the mud, and excites them to combat. These yellowish and livid eels, resembling large aquatic serpents, swim on the surface of the water, and crowd under the bellies of the horses and mules. A contest between animals of so different an organization furnishes a very striking spectacle. The Indians, provided with harpoons and long, slender reeds, surround the pool closely, and some climb upon the trees, the branches of which extend horizontally over the surface of the water.

"By their wild cries, and the length of their reeds, they prevent the horses from running away and reaching the bank of the pool. The eels, stunned by the noise, defend themselves by the repeated discharge of their electric batteries. During a long time they seem to prove victorious. Several horses sink beneath the violence of the invisible strokes, which they receive from all sides, in organs the most essential to life; and, stunned by the force and frequency of the shocks, disappear under the water. Others; panting, with main erect, and haggard eyes, expressing anguish, raise themselves, and endeavor to flee from the storm by which they are overtaken. They are driven back by the Indians into the middle of

the water; but a small number succeed in eluding the active vigilance of the fishermen. These regain the shore, stumbling at every step, and stretch themselves on the sand, exhausted with fatigue, and their limbs benumbed by the electric shocks of the gymnoti.

"In less than five minutes two horses were drowned. The eel, being five feet long, and pressing itself against the belly of the horse, makes a discharge along the whole extent of his electric organ. It attacks, at once, the breast, the intestines, and the *plexus cœliacus* of the abdominal nerves. It is natural that the effect felt by the horses should be more powerful than that produced upon man, by the touch of the same fish at only one of his extremities. The horses are probably not killed, but only stunned. They are drowned, from the impossibility of rising, amid the prolonged struggle between the other horses and the eels.

"We had little doubt that the fishing would terminate by killing, successively, all the animals engaged; but, by degrees, the impetuosity of this unequal combat diminished, and the wearied gymnoti dispersed. They require a long rest, and abundant nourishment, to repair what they have lost of galvanic force. The mules and horses appear less frightened. Their manes are no longer bristled, and their eyes express less dread. The gymnoti approach timidly the edge of the marsh, when they are taken, by means of small harpoons fastened to long cords. When the cords are very dry, the Indians feel no shock in raising the fish into the air. In a few minutes we had five large eels, the greater part of which were but slightly wounded."

The shops of Para are well supplied with English, French, and American goods. The groceries generally come from Portugal. The warehouses are piled with heaps of India rubber, nuts, hides, and baskets of annatto. This pigment is made from the seed of a burr, which grows on a bush, called urucu in Brazil, and achote in Peru. In the latter country, it grows wild, in great abundance; in the former, it is cultivated.

The seed is planted in January. It is necessary that the ground should be kept clean, the suckers pulled out, and the tree trimmed, to prevent too luxuriant a growth, and to give room, so that the branches shall not interlock. The tree grows to ten or fifteen feet in height, and gives its first crop in a year and a half. It afterwards gives two crops a year. Each tree will give three or four pounds of seed in the year, which are about the size of No. 3 shot, but irregular in shape. They are contained in a prickly burr, about the size and shape of that of the chincapin.

The burrs are gathered just before they open, and laid in the sun to dry, when the seed are trodden or beaten out. The coloring matter is a red powder covering the seed, the principal of which is obtained by soaking the seed in water for twenty-four hours, then passing them between revolving cylinders, and grinding them to a pulp. The pulp is placed in a sieve, called *gurupema*, made

of cotton cloth; water is poured on, and strains through. This operation is repeated twice more, and the pulp is thrown away. The liquor strained off is boiled till it takes the consistence of putty. A little salt is added, and it is packed in baskets of about forty pounds, lined and covered with leaves. It is frequently much adulterated with boiled rice, tapioca, or sand, to iucrease the weight. The price in Para is from three to five dollars the arroba, of thirty-two pounds.

An examination of the following tables will give the best idea of the commerce of Para. The first is an official report furnished to the provincial assembly by the President of the province.

Years.	Places.	Importation—Value.		Exportation—Value.	
		Relative to each place.	Relative to each year.	Relative to each place.	Relative to each year.
1846	Great Britain.....	$160,050	.....	$117,813	.....
	France	52,924	.....	107,791	.....
	Portugal	87,608	.....	123,156	.....
	Hanse Towns.....	19,993	.....	42,693	.....
	United States.....	235,105	.....	182,742	.....
	Trieste	.....	.....	3,818	.....
	Genoa	.....	.....	26,202	.....
	Spain	2,627	.....	.....	.....
	Baltic ports.....	.....	.....	12,188	.....
	Belgium.....	1,995	$560,302	5,649	$622,052
1847	Great Britain	211,442	.....	116 881	.....
	France	131,347	.....	162,546	.....
	Portugal	108,431	.....	128,548	.....
	Hanse Towns.....	20,519	.....	18,959	.....
	United States.....	230,531	.....	171,577	.....
	Trieste	.....	.....	17,182	.....
	Genoa	2,577	.....	22,705	.....
	Belgium.....	6,032	710,879	8,551	646,949
1848	Great Britain.....	149,774	.....	93,508	....
	France	85,856	.....	114,701	.....
	Portugal	113,496	.....	146,933	.....
	Hanse Towns.....	9,576	.....	30,012	.....
	United States	219,777	.....	145,366	.....
	Austrian domin..	2,686	.....	.....	.....
	Genoa	.....	.....	11,609	.....
	Denmark.....	7,638	.....	10,205	.....
	Belgium.....	483	589,286	12,547	564,881

Here are tables furnished by Mr. Norris, United States consul at Para:

American Commerce at Para for 1850.

No. of vessels.	Tonnage	Men.	Val. of imp.	Val. of exp.
23	5,452	275	$420,186	$522,293

British Commerce for 1850.

No. of vessels.	Tonnage	Men.	Val. of imp.	Val. of exp.
16	3,375	276	$199,790	$291,950

Commerce of Para for 1851.

	No. of vessels.	Tonnage.	Men.	Value of imports.	Value of exports.
American	30	4,574	226	$425,484	$476,210
English	14	2,732	139	275,000	335,000
French	10	536	99	122,830	188,699
Portuguese	19	3,666	312	231,457	215,142
Hamburg	2	510	18	27,500	131,000
Belgian	2	320	20	5,250	16,250
Dane	2	480	22	4,750	34,000
Swede	2	420	22	.....	28,500
	81	14,238	858	1,092,271	1,424,801

I am indebted to M. Chaton, French consul at Para, for the following table, showing the mean yearly value of the articles of export from the city of Para.

Products.	Quantities.	Value.
India-rubber	92,000 arrobas.	$552,000
Cocoa	230,000 "	270,900
Cotton	6,126 "	10,583
Cinnamon [rough]	600 "	1,633
Vegetable wax	457 "	69
Tonka beans	80 "	600
Isinglass	998 "	15,968

Products.	Quantities.	Value.
Piassaba rope	42,192 arrobas.	$42,192
Gum-copal	634 "	634
Bones	2,000 ,,	640
Brazilian nutmeg	1,020 ,,	3,060
Rice [shelled]	.....	65,126
Annatto	7,210 "	36,050
Sugar	21,350 "	16,012
Sarsaparilla	3,897 "	35,073
Nuts	28,208 alquiers.	18,952
Tapioca	2,000 "	3,000
Rice [in the husk]	12,800 "	6,400
Carajuru	400 pounds.	388
Green hides	406,900	20,345
Guarana	3,450 pounds.	1,500
Cattle	300	4,500
Wood—Bardages	349	614
De fer	113	1,084
Madriers	1,535	1,534
Planches	52,217 feet.	1,468
Dressed hides	15,000	19,445
Tiger skins	228	456
India-rubber shoes	192,000	38,400
Molasses	2,888	2,888
		$1,171,514

To this sum is to be added the value of 7,338 canadas of balsam copaiba, worth when I was there three dollars, now worth seven and a half dollars; besides that of pots of oil made from the turtle; the alligator, and the andiroba-nut, which M. Chaton has not included in his list. These last, however, are inconsiderable.

Extracts of letters from Henry L. Norris, esq., United States consul at Para, to the Department of State:

"Merchandise, the produce of this country, is usually bought for cash, or in exchange for the products of foreign countries by way of discount, nor is brokerage paid for purchasing. Cash usually has the advantage over barter on the price of produce to the amount of from five to ten per cent. The American business is done chiefly for cash, while English, French, and Portuguese, is chiefly for barter; dry goods, &c., are sold on long credit, and produce taken in payment. With the latter the profits of trade are on the outward cargo; while with the former, the profit, if any, is with the homeward.

"There are no bounties or debentures of any kind allowed here.

"The usual commission for the purchase and shipment of goods is two and a half per centum, and is the same on all description of produce.

"The American trade, with few exceptions, is conducted either by partners or agents of houses at home; consequently brokers are never employed to buy produce, and no brokerage is paid. When foreign goods are sold at auction, the commission paid is one per cent. on dry goods, and one and a half on groceries.

"Merchandise is brought to market altogether by water, and is usually delivered into the storehouses of the purchaser or on board the shipping.

"Export duties are as follows:

Meio dezimo, [for the church].....	5 per cent.
Exportacao, [for the government].....	7 per cent.
Vero pezo, [weighing].....	½ per cent.

"Capitazia [paid for labor] quarter of a cent the arroba, on all kinds of merchandise.

"These duties are levied on the custom-house valuation, which is made at the beginning of each week, and not on the cost of the produce; as in that cost is included a duty of five per cent., which is paid on some articles when they are landed at the port of exportation. This last is a provincial tax, which is levied on India-rubber, tapioca, and farinha.

"Produce coming from an interior province—such as dry hides—does not pay the *meio dezimo* of five per cent., as it is paid at the time of embarking at the place of production; and this duty, together with freight, labor, &c., enters into the cost price of the merchandise at this port, which is the only shipping port for the provinces of Para and Amazonas.

"There are no dock, trade, nor city dues to be paid at this port.

"Lighters are hired at two dollars per day; they carry from forty to fifty tons.

"Porterage is done by blacks, who place the cargo in the lighters at prices varying, according to the distance carried, from three to four cents per bag for cocoa, India-rubber, &c., and from six to eight cents each for barrels and boxes.

"Nuts and rice in husk are delivered alongside the vessel at the expense of the seller.

"Packages — such as boxes, barrels, and bags — are imported from the United States, and with the exception of barrels, which come filled with flour, pay a duty of thirty per cent.

"The cost of cooperage is eight cents per barrel. All local imports or taxes are paid by the producer, and are included in the selling price of the article. The purchaser receives with the merchandise a receipt that the provincial duty has been paid, which receipt is demanded at the time of exportation to a foreign country or to another province.

"There is so little intercourse with the States bordering on this province, that there are no laws in force regulating the transit of merchandise from Peru, Bolivia, Ecuador, &c., but all merchandise coming down the Amazon is considered as the produce or manufacture of Brazil.

"By a law of Brazil, the estate of any foreigner who may die in this country, is subject to the jurisdiction of the *Juiz dos Ausentes e difuntos.* A will is no protection to the property, but it must be 'recovered, availed, and deposited in the public depository by a juiz competente.' The getting hold of the property by the heirs to an estate is a tedious and expensive process; and when the inheritance consists of real estate, about twenty per cent. is consumed by taxes of various kinds, and in some cases, by the collusion of the officers entrusted with settlement, it has disappeared entirely. The French by treaty are exempted from this.

"Not longe since, at Maranham, a guard of soldiers was placed around the dwelling of a foreigner about to die, and who was supposed to be possessed of a large amount of personal property. A similar case also occurred here, which has created alarm amongst those of our countrymen who have property invested in this country; for should it be made to appear that, upon the death of one or more of the partners of any of our large mercantile houses, the affairs of the concern must pass into the hands of a '*juiz competente*,' it would have a serious effect upon the credit and standing of all the citizens or subjects of those nations which have no treaty with Brazil on this subject."

It remains for me but to express my grateful acknowledgments for personal kindness and information afforded by many gentlemen of Para, particularly by Mr. Norris, the consul, and by Henry Bond Dewey, esq., now acting consul. These gentlemen were unwearied in their courtesy, and to them I owe the information I am enabled to give concerning the history and present condition of the province and the city.

On May 12th, by kind invitation of Captain Lee, I embarked in the United States surveying brig 'Dolphin', having previously shipped my collections on board of Norris's clipper barque the *Peerless.*

ARTICLE VII.

My Own Times.

From a forthcoming work from the pen of Ex-Gov. REYNOLDS.

CHAPTER XV.—*The Morals of the Illinois Pioneers.*

The poverty of the country in early times, and the sparseness of the population, must furnish the reason that the pioneers of the country at an early day were more moral than the people are at present. It requires the means, as well as the intention, to commit sin. One other reason is, perhaps, that in early times the people being fewer in number, knew one another better than they do now. Then public opinion was more certain to fix on a crime and criminal than it is now, when the people are so numerous and seem to be more irresponsible. It is my sincere conviction that morality was more practised and more respected in early times in Illinois than it is at this day. I have lived through all the various scenes and changes in the country for more than half a century, and have almost the whole of this period been amongst the people. Under these circumstances I cannot be mistaken; and I state that the people fifty years since in Illinois were more moral than they are at this time.

A white man and an Indian were hung for murder in Kaskaskia, one in 1802 and the other in 1804, and none other was hung in Illinois until 1821, in Belleville. In twenty-two years, to have but two capital punishments, one an Indian, is speaking volumes for the morality of the people. Thefts were of rare occurrence; and forgery, perjury, and similar crimes were seldom perpetrated.

The courts were in session four times in each year in Cahokia and Kaskaskia, and grand juries attending them; but if I recollect rightly, the juries were frequently adjourned without finding one single indictment.

These are the higher crimes I mention as being of rare occurrence—the lower violations of the law were not so rare: assaults and batteries, riots, and similar misdemeanors, arising out of a wild, reckless independence, sometimes occurred. These breaches of the law did not involve any corruption of the heart, but were such that at times they may occur in any community.

It is true that the use of intoxicating liquors was indulged in at that day, some more then than at present. Drinking in primitive times was fashionable and polite, and liquor was considered an element in the conviviality of all circles. Public opinion sustained the use of the bottle at that day, but now it severely condemns it —this is some palliation for the pioneers.

The French were never an intemperate people in the use of liquor.

Most of the drinking and intemperance indulged in by the Americans was in the villages of Cahokia and Kaskaskia, and many good citizens were injured by the excessive use of ardent spirits.

I had reached my fifteenth or sixteenth year, and had seen in the villages and other places much intemperance and immorality arising out of drunkenness. I deliberately reflected on the subject, and without consulting any one, or any one knowing it, I took a solemn resolution never to drink any distilled spirits whatever. My father had fallen into the habits of intemperance to a considerable extent, which was the main reason that induced me to make this decision. He had injured himself and family by his use of ardent spirits; and I was fearful if I drank at all I might fall into the same habits. My humble character was developed some at the time, and I possessed, I feared, the same traits which my father had, which might lead me into the same errors. I was satisfied then, as I am now, that there is no certainty in any other manner than to abstain entirely from intoxicating drinks, if a person wishes to be a sober man. I saw in what manner liquor operated on my father—that when he entered into gay and exciting society that it seemed almost impossible for him to refrain from drinking. This decision has been no doubt of essential service to me, and perhaps saved me from ruin. At that time I had scarcely ever tasted spirits, and knew not at all how it would operate on me; but I saw that liquor had ruined many men, and I concluded it was the safest course to drink none at all.

In early times, in many settlements of Illinois, Sunday was observed by the Americans only as a day of rest from work. They generally were employed in hunting, fishing, getting up their stock, hunting bees, breaking young horses, shooting at marks, horse and foot racing, and the like. When the Americans were to make an important journey they generally started on Sunday and never on Friday — they often said, "the better the day the better the deed."

In many of these American settlements there were no clergymen or houses of public worship, and consequently no religious meetings. Many, like they are at present, would go to church if they had the opportunity. Other colonies observed the Sabbath in a different manner. The older the settlement was, generally, the more the religious worship was observed in it. The aged people everywhere generally remained in their houses on the Sabbath, and read the Bible and other books. Not many worked at their ordinary business on Sunday. It was a custom and habit to cease from labor on that day, except from necessity. When any farmer in olden times, cut his harvest on Sunday, from necessity, public opinion condemned it more severely at that day than at the present. With the Americans there was no dancing and very little drinking on the Sabbath.

The French colonies observed the day in a different manner than the Americans. Worship ended and church over, they were more relaxed in their deportment, and enjoyed the rest of the day in

amusements, merriment aud recreation. Dancing, training the militia, house raising, and similar performances, were in pioneer times indulged in by the French on the Sabbath. Public sales of land and other property in early times was held by the French at the church doors on Sundays after the service was closed. I have seen the young folks in France dancing on a Sunday evening under the shade of the trees, on the grass, with as much gentility and decorum as if the dance had been on any other day of the week. The old people were frequently seated around and enjoying the amusement with decided approbation. These customs are congenial to French vivacity and cheerfulness.

The French population frequently assemble on the Sunday evenings and discuss their public business.

The French are guarded against the breaches of higher penal laws.

There never was a Creole Frenchman hung in Illinois since the earliest settlement of the country. Some colored persons were hung in Cahokia for the pretended crime of witchcraft. No Creole was ever sentenced to the penitentiary of this State. Misdemeanors, such as keeping a drinking house open on Sunday, and similar offences, they are at times guilty of and punished by the laws.

In common broils and personal combats the French rarely engaged. They detested a quarrelsome, fighting man; but they had a class of *bataillers*, as the French called them, who prided themselves in single combat.

The Americans indulged in personal combats in those days more frequently than at present: very seldom they had "pitched battles" as they were called, but would fight on the spur of the occasion, and frequently make it up before they parted. They scarcely ever fought unless they had been drinking, and commenced in the heat of passion. In these American fights no rules were observed, but at times eyes and ears were much injured and sometimes destroyed. There is no exhibition of human nature in much more degraded and brutal condition than to be engaged in a "*pitch battle*" or a "*prize fight*" — any fighting is detestable and degrading, but a fight for a wager puts the contestants and the spectators below the evel of the beast, and a government or public opinion that will lot punish it with the severest penalties of the laws deserves the nondemnation of every honest man.

COMMERCIAL DEPARTMENE.

Commerce of the United States.

[From the Merchants' Magazine.]

FOREIGN IMPORTS AT NEW YORK FOR SIX MONTHS FROM JUNUARY 1ST.

	1852.	1853.	1854.	1855.
Entered for consumption	$17,044,912	$76,833,164	$70,447,314	$45,897,795
Entered for warehousing	5,027,749	11,506,681	13,726,750	13,832,891
Free goods	7,344,785	8,596,616	9,231,284	7,762,627
Specie and bullion	1,878,181	900,062	1,408,027	454,116
Total entered at the port	$61,295,627	$97,836,523	$94,813,375	$67,947,429
Withdrawn from Warehouse	8,526,777	6,524,654	10,908,044	12,242,070

The month of June ends the fiscal year of the United States. The government returns, including the total for each of the minor ports, are not yet completed, but we have compiled the total for New York. From this we see that the imports for the year ending June 30th are $36,568,978 less than for the year ending June 30th, 1854, $11,884,989 less than for the year ending June 30th, 1853, and $34,237,678 more than for the year ending June 30th, 1852, as will appear from the following comparison:

IMPORTS OF FOREIGN MERCHANDISE AT NEW YORK FOR THE FISCAL YEAR ENDING JUNE 30TH.

	1852.	1853.	1854.	1855.
Entered for consumption	$94,345,831	$136,458,663	$147,939,241	$107,029,210
Entered for warehousing	11,466,714	15,144,573	27,417,160	32,022,396
Free goods	11,926,912	13,357,173	12,791,055	14,230,259
Specie and bullion	2,528,391	1,430,106	2,937,048	1,153,661
Total entered at the port	$120,267,848	166,390,515	191,074,504	154,505,525
Withdrawn from warehouse	16,712,962	13,413,186	19,876,445	23,501,421

For the whole year the receipts of free goods have slightly increased, while the warehousing business is larger than ever before since the system was established. Of the decrease in the imports, by far the largest portion, as compared with last year, has been in dry goods, while compared with the year ending June 30th, 1853, the falling off in dry goods alone is nearly double the aggregate decline. We have compiled the following table in proof of this statement:

IMPORTS AT NEW YORK FOR THE YEAR ENDING JUNE 30TH.

	1853.	1854.	1855.
Dry goods	$79,192,513	$92,389,627	$62,918,443
General merchandise	87,198,002	98,684,877	91,587,083
Total imports	$166,390,515	191,074,504	154,505,526

Compared with last year the imports of dry goods have fallen off $29,471,184, while the imports of all other descriptions of merchandise have fallen off only $7,097,794.

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK FOR SIX MONTHS, FROM JANUARY 1ST.—Entered for consumption.

	1852.	1853.	1854.	1855.
Manufactures of wood	$5,277,654	$10,815.972	$8,748,853	$5,181,553
Manufactures of cotton	4,626,052	7,621,801	8,489,125	3,660,275
Manufactures of silk	9,168,466	15,854,541	13,540,260	7,798,851
Manufactures of flax	2,935,404	4,199,560	3,713.007	2,221,598
Miscellaneous dry goods	1,961,860	2,786,750	2,798,969	2,118,642
Total	23,969,436	41,278,624	37,290,214	20,983,916

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SIX MONTHS FROM JANUARY 1ST.

	1852.	1853.	1854.	1855.
Domestic produce	$22,145.821	25,422,590	31,197,440	26,337,424
Foreign merchandise [free]	521,119	697.477	732,815	3,103,557
Foreign merchandise [dutiable]	2,419,575	2,040,980	2,384.679	2,989,852
Specie	12,624,009	8,654,982	16,185,867	17,074,795
Total exports	37,710,624	36,815,729	50,500,801	49,505.628
Total, exclusive of specie	25,086,615	28,160,747	34,314,934	32,436,833

Turning now to the exports for the fiscal year just ended, we find the total, exclusive of specie, only $19,967,249 less than the very large total shipped during the year ending June 30th, 1854; $12,822,094 more than for the year ending June 30, 1853; and $18,136,251 more than for the year ending 30th June, 1852. The exports of specie have been larger than in either of the previous years.

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE FISCAL YEAR ENDING JUNE 30.

	1852.	1853.	1854.	1855.
Domestic produce	$38,853,757	43,993,250	66,316,938	52,602,406
Foreign merchandise [free]	871,687	1,058,209	1,339,973	4,084,387
Foreign merchan. [dutiable]	4,461,885	4,450,027	5,634,818	5,636.781
Specie	37,273,703	21,127,228	34 284,241	38,058,334
Total exports	$81,461,032	70,628,714	107,575,070	100,381,914
Total excl. of spedie	44,187,329	49,501,486	73,290,829	62,323,580

To sum up, then, we find that while the imports for the last fiscal year, as compared with the one just previous, have declined $36,568,978, the total exports have declined only $7,193,156, while the specie shipments have increased only $3,774,093. This showing is far different from what which many predicted, and proves that this trade will regulate itself if political economists will have a little patience. We annex a recapitulative summary to show at a glance the several totals for the year:—

IMPORTS AND EXPORTS AT NEW YORK.

Year ending June 30.	Exports of specie.	Total exports.	Total imports.
1855	$38,058,334	100,381,914	154,505.526
1854	34.284,241	107,575,070	191,074,504
Difference	$3,774,093	7,193,156	36,568,978

It will be a matter of interest to many of our readers to know the course of the trade throughout the year. For their gratifica-

tion we have compiled a table embracing the several months of the fiscal year, and showing the result of each month's imports and exports, as compared with the same month of the preceding year. From this it will be seen that the decline in imports began in September, and, with a single unimportant exception, continued to the close; while the decline in exports, exclusive of specie, was greatest from September to December.

IMPORTS AND EXPORTS FOR THE FISCAL YEAR ENDING JUNE 30, 1855, COMPARED WITH THE SAME FOR THE YEAR ENDING JUNE 30, 1854.

	EXPORTS EXCLUSIVE OF SPECIE.		TOTAL IMPORTS.	
	Increase.	Decrease.	Increase.	Decrease.
July	.....	$1,390,871	$149,843	.....
August	$258,786	.....	2,890,359	.....
September	.....	1,851,589	.....	$3,025,816
October	.....	1,125.813	.....	1.151,887
November	.....	3,177,617	.....	3.953,085
December	.....	1,796,044	.....	4.612,446
January	50,722	.....	.....	6,661,992
February	.....	1,393,006	985,902	.....
March	304,666	.....	.....	6,384,017
April	.....	231,201	.....	7,476,423
May	.....	624,437	.....	5,535,195
June	9,155	.....	.....	1,794,221
	623,329	11,590,578	4,026,104	40,595,082
	.....	623,329	.....	4,026,104
Total decrease	.....	10,967,249	.....	36,568,978

The cash revenue at the same port for June (exclusive of penal duties and hospital money) shows a slight decline compared with June of last year, but a greater falling off from the receipts for June, 1853. The total received for cash duties for the last six months is $5,438,015 05 less than for the corresponding period of last year, $6,867,383 79 less than for the same time in 1853, and $49,632 83 more than for the same time in 1852. The total for the fiscal year ending June 30, is $8,999,984 06 less than for the previous year, $5,590,881 40 less than for the year ending June 30, 1853, and $3,979,962 67 more than for the year ending June 30, 1852. We connex a comparison for each term specified:

CASH DUTIES RECEIVED AT NEW YORK.

	1852.	1853.	1854	1855.
In June	$2,232,680 23	3,840.723 33	2,452.606 83	2,316,464 80
Previous 5 months	12,017,632 65	17,326,606 17	17,285,353 93	11,983,480 91
Total 6 months	14,250,312 88	21,167,329 50	19,737,960 76	14t299,945 71
Total fiscal year	28,678,910 36	38,249,754 43	41,658,857 09	32,658,873 03

The receipts for customs at Boston show a less comparative decline, as the steamers arriving there this season have brought larger freights, owing to the change in the line to New York. We look for no important increase in imports over last year until after the close of August; from that time to the end of the year we anticipate a large comparative increase in the receipts of foreign mer-

chandise. We annex a comparative statement, showing the imports at New Orleans during the last fiscal year:

IMPORTS OF MERCHANDISE AND BULLION AT THE PORT OF NEW ORLEANS FOR THE FISCAL YEAR ENDING JUN. 30, 1855.

	Dutiable.	Free.	Bul. & specie.
July, 1854	$197,297	$57,859	$85,587
August	306,416	15,727	40,270
September	675,961	160,356	28,014
October	761,347	126,918	35,926
November	935,553	330,052	43,215
December	735,764	818,400	93,849
January, 1855	686,784	579,736	83,159
February	428,941	532,687	126,461
March	672,219	483,419	830,880
April	572,473	359,515	90,721
May	495,944	419,690	43,487
June	471,296	402,781	133,928
	$6,939,002	$4,297,170	$1,687,436
Dutiable	.....	.....	6,939,002
Free	.....	.....	4,297,170

For the past three fiscal years ending June 30, the following is a comparative statement:

IMPORTS OF MERCHANDISE AT THE CUSTOM HOUSE, NEW ORLEANS.

	1853.	1854.	1855.
Dutiable	$8,019,029	$8,272,449	$6,939,002
Free	4,272,252	3,876,578	4,297,170
Bullion and specie	1,362,832	2,253,128	1,687,436
	$13,654,113	$14,402,155	$12,923,608

MONTHLY RECEIPTS OF CASH DUTIES AT NEW ORLEANS FOR THE YEARS

1854.		1855.	
July	$62,231	January	$213,666
August	100,796	February	130,801
September	199,896	March	202,916
October	219,724	April	171,147
November	219,342	May	156,239
December	283,122	June	146,340
			$1,021,109
			1,106,981
			$2,128,690
		Am't rec. f. fis. year	2,558,647
	$1,106,981	Decrease or falling off	$430,557

The annexed statement will show the amount received for duties at the custom-house at Philadelphia, for the month of June, and for the first six months of the current year, compared with the corresponding periods in the two previous years:

	1853.	1854.	1855.
June	$628,503 90	$304,754 75	$249,445 20
Previous 5 months	1,831,651 65	2,088,619 12	1,403,082 85
Total 6 months	$2,460,155 55	2,393,378 87	1,662,528 05

We also annex a summary, showing the comparative revenue, &c., at Boston:

Revenue collected at Boston for the month ending June 30, 1855	$505,961 03
Collected for the month of June, 1854	668,104 07
Decrease	157,233 04
Collected for the fiscal year ending June 30, 1854.	8,342,289 06
Collected for the fiscal year ending June 30, 1855.	7,616,568 78
Decrease	725,720 28
Collected from January 1 to June 30, 1854	4,344,753 39
Collected from January 1 to June 30, 1855	3,706,848 85
Decrease	637,904 54
Foreign arrivals from January 1 to June 30, 1854	1,213
Foreign arrivals from January 1 to June 30, 1855	1,285
Increase	72

It will be seen that the foreign arrivals from January 1 to June 30, 1855, exceed the arrivals for the same period in 1854, 72; while the revenue for the same time is $637,904 54 less than it was in 1854.

The keeping up of the exports at New York, nothwithstanding the large falling off in the shipments of breadstuffs, has excited general surprise. The following comparative summary of the shipments of the leading articles of domestic produce for the last six and a half months will be found highly interesting:

EXPORTS OF CERTAIN ARTICLES OF DOMESTIC PRODUCE FROM N. YORK TO FOREIGN PORTS FROM JANUARY 1ST TO JULY 16TH:

		1854.	1855.
Ashes—pots	bbls.	4,828	5,627
pearls		463	1,618
Beeswax	lbs.	134,654	112,086
Breadstuffs—Wheat flour	bbls.	657,397	226,198
Rye flour		9,986	13,818
Corn meal		48,187	33,217
Wheat	bush.	1,380,409	31,288

		1854.	1855.
Rye		315,158	5,139
Oats		15,359	12,111
Corn		2,410,796	3,304,293
Candles—mold	boxes	31,727	31,748
sperm		3,674	7,483
Coal	tons	15,131	4,006
Cotton	bales	192,330	153,756
Hay		2,821	3,584
Hops		481	7,640
Naval stores	bbls.	361,680	392,302
Oils—whale	galls.	109,422	92,068
sperm		234,870	473,842
lard		17,154	32,056
linseed		2,053	6,079
Provisions—Pork	bbls.	54,864	112,880
Beef		40,856	47,619
Cut meats	lbs.	13,148,061	14,658,452
Butter		1,316,825	367,871
Cheese		1,168,441	1,451,736
Lard		8,321,190	5,202,481
Rice	trcs.	16,470	10,818
Tallow	lbs.	2,449,005	1,098,825
Tobacco, crude	pkgs.	23,697	19,324
Do. manufactured	lbs.	1,512,735	2,622,582
Whalebone		787,470	1,047,730

The foregoing shows that the exports of wheat flour have declined two-thirds and the shipments of wheat, which for the same time last year reached nearly a million and a half of bushels, have almost totally ceased. The clearances of Indian corn have been nearly the same. Cotton has fallen off, while the shipments of many descriptions of provisions have largely increased. There can be little question but what Great Britain will need large supplies of breadstuffs during the coming year, even though her own crops should prove a full average; so that we may reckon not only on large sales of produce for export, but also on a large carrying trade for our vessels. The shipping interests have suffered very much during the last year, and many have found no employment for their vessels which paid for more than the expense of maintenance and repairs. A brisk demand for our produce would revive this drooping trade and put new life in naval affairs.

DEPARTMENT OF INDUSTRY.

In commencing the publication of a series of articles on the manufactures of St. Louis, we desire to remark that we do not enter upon this labor with the design of puffing either the city or individuals: our chief object is to ascertain for the benefit of producers and consumers, at home and abroad, the capacity of St. Louis to purchase from the former and to supply the latter. It is not to be expected that facts can be ascertained with perfect accuracy in respect to any branch of industry; but we trust that by the exercise of proper diligence, we shall attain a degree of correctness that may be relied upon for all practical purposes. The plan we have in view involves much labor and expense, and as it embraces every branch of industry in St. Louis, will require many months for its completion. In the meantime we respectfully request individuals engaged in the respective branches of manufacturing to furnish us with facts relating to the nature and extent of their business.

That we may give additional value to the statistics relating to manufactures, it is our design to notice the sources whence the raw material is obtained, and also the markets to which the fabrics are sent for consumption.

HEMP.

Culture of Hemp in Missouri — New Power Hemp Break — Manufacture of Bagging and Baling Rope in St. Louis.

Hemp, in some form or other, enters into the commerce of every part of the country, and although the climate and soil of a considerable part of the United States are favorable to its growth, yet its production has been monopolized by Kentucky and Missouri. According to the census of 1850, the crop of 1849 amounted to 34,871 tons: of this Kentucky produced 17,787 and Missouri 16,-028 tons, all the other States producing only 1,056 tons. We are not in possession of facts showing whether the culture has increased or declined in Kentucky since 1849, but we imagine it has remained nearly stationary. If we are correct on this point, we think it probable that Missouri is now a larger producer than Kentucky According to the Harbor Master's books, the quantity received at St. Louis by the river, in 1850, [the crop of 1849,] was 62,798 bales, and in 1854, 67,599, being an increase of 4801 bales, or

about 960 tons. Since 1849 there has been a considerable increase in the manufacture of rope in the interior; and if we add 1000 tons for this increase in 1854 above the quantity manufactured in 1850, it will make the grop grown in 1853 about 18,000 tons. This, however, is a small increase compared to that which would take place in Missouri were there greater inducements for extending the culture. But until the cost of preparing the fibre for market is considerably reduced, the culture of hemp will only be extended by very slow degrees. It may be regarded as a settled point that the non-slaveholding States will not grow hemp, nor is it probable that any of the slaveholding States, south of Kentucky and Missouri, will ever cultivate it as a staple. It was introduced some twenty years ago into Tennessee, but after the experience of several years by individuals of ample means on the best lands it was abandoned. In Kentucky and Missouri the culture of hemp is in the hands of the more wealthy class of farmers, who being familiar with the nature of the demand, are cautious in extending their crops, and are generally in a condition in case the price declines below a remunerating point to withhold their produce from market. Hence until improvements are made in the facilities of producing, there is little prospect that the consumption will be increased by reason of lower prices. But could the cost of producing be reduced to a point that would exclude the gunny cloth of India, and enable the American grower to compete with the Russian in the English market, the culture might and would be increased many-fold in a few years. And owing to the causes to which we have referred, in connexion with the great extent of soil adapted to hemp growing in Missouri she would produce and control a commercial staple which of itself, to say nothing of her other resources, would make her one of the richest agricultural States in the Union.

Appreciating as we do the importance of reducing the cost of preparing hemp for market, we are much gratified that a machine for breaking has recently been invented, which promises to do all perhaps that could be desired in that department of the business. We have seen this machine in operation, and conclude that when fairly tested, the following account of its capacity and practical results will be fully verified. We copy from the "Missouri Democrat" of 8th ultimo.

A NEW POWER HEMP BREAK

Invented by S. A. Clemens.

The entire hemp crop of this country is still broken and prepared for market by hand labor.

The labor is severe and the average day's work in favorable weather is about one cwt.

In wet or damp weather hemp cannot be broken by the hand break, and the average during the entire breaking season does not exceed 50 lbs. per hand each day.

Most of the hemp brought to this market is not only poorly cleaned, but is overrotted by too long exposure to the weather, to facilitate the operation of hand breaking.

The present limit of the hemp crop of Missouri is the manual labor which can be applied to breaking by hand.

A given force of farm laborers can raise and handle at least double the quantity of hemp which they can break by hand in the course of the season usually devoted to this work.

Previous attempts to produce a good power hemp break have been almost without number, but have failed in their object.

The new break in operation at Whitly's brass foundry on North Main street, was made in St. Louis. Its working principle is new and entirely simple and safe. The main feature is a most effective breaking and whipping action combined in one vibrating member of the machine. The hemp stalks are spread in successive layers of large handfulls upon a feed apron at one end of the machine, and the layers of fibre are delivered at the other end. Hemp stalks however tangled, can be passed through the machine, but it spreads better and comes through straighter when the stalks are kept straight and even. Hands of the shortest hemp are not elongated in passing through the break, thus avoiding an objection when the hand break is used.

An inferior quality of hemp barely five feet in length, is broken by the machine at a rate exceeding one ton in ten hours. With long good hemp the quantity can be increased to one and a half tons per day. By the testimony of leading manufacturers in St. Louis, hemp is better cleaned by this machine than seven-eigths of the article sent to this market. It most favorably works hemp which is less rotted than is required for hand breaking. The article thus produced, has a stronger fibre, and makes less tow on the heckle. Three workmen are necessary to attend the machine. It is portable, and may be driven by a small portable engine, for which the shives of the broken stalks furnish a surplus of fuel, or a horse power may be used of the description employed to drive the large common threshing machines.

A proprietary company is in preliminary formation for the introduction of the new break extensively in Missouri.

By its general adoption the yearly product of hemp will be only

limited by the quantity which can be cultivated, gathered and rotted. This will at once double the aggregate production. The importance of such a result is thought to be equal to the promise of any R. R., or other current project.

In verification of the foregoing, S. A. Clemens, the inventor, refers to John L. Blaine, J. T. Douglass, Edward Wyman, James E. Yeatman, U. Rasin and J. H. Alexander, Esqrs. of St. Louis.

The introduction of machinery for manufacturing hempen fabrics in St. Louis is of very recent date. The manufacture of cotton bagging commenced in 1853, and of baling rope in 1854. There are now four establishments in the city which are operated by steam. Two of these make cotton bagging, and all make baling rope, and dress hemp for other markets.

We have conversed with either the proprietors or managers of all these establishments, and from the information obtained we conclude that in the aggregate they are capable of consuming and dressing about 11,000 tons of raw hemp per annum. Of this about 2,000 tons is wrought into cotton bagging; and about 4,700 tons into baling rope. There are also six rope walks in the city which consume about 300 tons of raw hemp per annum, which is wrought into baling rope, twine and various other descriptions of cordage.

According to the Harbor Master's books, there was received at St. Louis in 1854, 35,817 coils of rope, which reduced to raw hemp would be equal to about 2,000 tons. There was also received at this port during the same period 2795 pieces of bagging. Thus it will be seen that the machinery and rope walks in the city of St. Louis, and in the interior of the State, are capable of consuming annually about 7000 tons of raw hemp in the manufacture of baling rope; weighing after deducting 12½ per cent. wastage in manufacturing 13,720,000 pounds. This, allowing 8 pounds of rope to the bale, is sufficient to bind 1,715,000 bales of cotton, amounting to more than one half of the crop of the United States. But there is reason to conclude that the capacity of manufacturing rope in the interior is even greater than the foregoing estimates would indicate. For by reference to the statistics of Lexington, we find that there were three extensive hemp factories in operation at that place in 1854, two operated by steam and one by horse power. Rope is also manufactured at Glasgow, Liberty, Rocheport, and Miami, and we feel persuaded from the facts which we have been able to collect from these points, that the 35,817 coils of rope received at St. Louis in 1854 do not fully represent the manufactur-

ing capacity of the interior, and that we should not be far from the truth were we to add 1000 tons to the foregoing estimate. The manufacturing capacity of Missouri will then represent the annual consumption of about 8,000 tons of raw hemp in baling rope, and 2,000 tons in cotton bagging, and about 5,000 tons of hackled or dressed hemp. Leaving about from 3,000 to 4,000 tons of raw hemp for exportation. But a large portion of this power has but very recently been put in operation, and hence we are unable to state the results of the current year We may also observe that these are only estimates of capacity, and not of actual products, which owing to a vatiety of causes, are rarely if ever equal to the means of producing.

It is obviously the true policy of Missouri to convert into fabrics or dress all the hemp produced in the State, and we rejoice that such a vigorous movement has been made in that direction. For besides giving employment to our people, and retaining the profits of manufacturing at home, it will be the best means which we can at present command of extending the commercial relations between St. Louis and the Southern States.

[From the United States Mining Journal.]

On the Manufacture of Steel as carried on in Great Britain and other Countries.

By Charles Sanderson.

At a meeting of the Society of Arts, held at Sheffield, G. B., on the 9th of May, the following highly important paper "on the manufacture of steel" was read by Mr. Charles Sanderson.

We direct particular attention to this valuable communication, in which the extensive practical experience of Mr. CHARLES SANDERSON on this branch of industry was illustrated by much study and research. Mr. SANDERSON, in addition to being a large steel manufacturer and patentee, may be said to have acquired an European reputation; he is a member of the Imperial and Royal Society at Vienna, having been proposed by the Archduke JOHN of AUSTRIA. He is, besides, a member of the Society of Arts, Manufactures and Commerce of France, and also of the Geological, Geographical and Statistical Societies of Paris, from which latter institution he received a medal of honor. An essay from such an eminent source, on a subject of such general interest, must command very marked notice.

The discussion which followed the reading of the paper elicited much useful information.

In answer to an inquiry whether Mr. SANDERSON had used peat charcoal in the manufacture of steal, that gentleman replied that he had employed peat charcoal in the manufacture of iron in the common charcoal refinery, and that he had made a ton of iron of good quality, and with less fuel than when wood charcoal was used. He intimated a very strong opinion that compressed peat may be successfully employed in the making of superior iron, and peat charcoal in the manufacture of superior steel.

Mr. SEIMENS stated that he had seen at the work-shops of Mr. F. CRUPP, of Eisen, in Westphalia, steel applied in large bulks to the various parts of machinery, such as railway axles and railway tyres, the latter being formed of cast steel in a very ingenious manner. A flat bar of steel was taken, two holes were bored in the ends of the bar, and by powerful machinery it was cut through from hole to hole. It was then opened out, and between rollers a perfect tyre was made, without a weld. He has seen one tyre which, after running 30,000 miles, presented scarcely any appearance of wear on its surface. Another application of steel was to railway axles and crank axles of locomotive engines, where again the metal was called upon to sustain a great amount of wear and tear. He thought in all these cases the very best metal ought to be used, which in the end would always be found cheapest the excessive value of the steel being more than compensated by the greater load that can be put upon it, and by the much reduced wear and tear. Mr. CRUPP was known to the British public by the steel gun, and the large steel rollers for rolling mills, which were so favorably noticed at the Great Exhibition.

In reference to the same subject, Mr. DODDS stated that steeled surface tyres were patented several years ago by Mr. SYDNEY JESSOP, of Sheffield, and his plan carried internal evidence of its superiority over cast steel tyres, because steeled tyres had all the toughness of the iron, and were, consequently, more secure against accident, as the wearing parts were as deep as could be required. Mr. JESSUP'S tyres had been successfully tried, and would now be, doubtless, employed, as they could be manufactured at less cost. In conclusion, Mr. DODDS remarked on the beautiful effect of this process ; bars of cold short iron had been already made into long, short and partially fibrous iron, by regulating the carbon mixture and the heat.

The meeting terminated with a vote of thanks to Mr. SANDERSON for his admirable paper, which was carried by acclamation.

The manufacture of steel is of great antiquity, coeval, if not anterior, to that of iron; it was known to the Chaldeans, the Hebrews and the Greeks ; the processes they are said to have used, are detailed by Aristotle, Pliny and Plutarch, but they are so obscure and contradictory, that no reliance can be placed upon them. It

appears most probable that steel was, in the first instance, produced accidentally, whilst attempting to obtain iron. This question is, however, more curious than useful; I will, therefore, dismiss it, and turn to the subject before me. Steel is a carburet of iron, more or less freed from foreign matter; it can be produced by two processes, opposed to each other: the first, or earlier method, is by working pig-iron, which on an average contains four per cent. of carbon, in a suitable furnace, until the carbon it contains is reduced to that quantity required for steel, which is one per cent. The second method is to beat wrought-iron in bars (which contain little or no carbon,) in contact with some carbonaceous matter, until it has absorbed that quantity of carbon, which may be required for hard or soft steel purposes.

The various kinds of steel, which are now manufactured in this and other countries, are—

NATURAL, or RAW STEEL, which is manufactured from crude iron as obtained from the blast furnace;

CEMENTED, or CONVERTED STEEL, which is produced by the carbonization of wrought-iron.

CAST STEEL, which is obtained by the fusion of either natural or cemented steel, principally from the latter.

In the manufacture of steel, the quality of the iron, from which it is made, is of the first importance; it is absolutely necessary, that it should be free from earthy matter, silicate of the metal, sulphur, arsenic, &c. Any foreign matter contained in the iron, is very injurious for steel purposes, but the silicates are, in my opinion, the most deleterious, since they produce a red short quality, caused by their mechanical mixture with the carbonized molecules of the steel, and thus destroying the malleability of the mass. The mines of Danemora have, for many centuries, enjoyed the highest reputation for producing iron of the finest description for steel, and they alone should be used for producing the very best cast-steel; their high reputation and scarcity have combined in commanding for them a very high price.

The marks L. GL. OO. are made wholly from Danemora ores; the marks CF. Ẅ. B̈. Grid, and some others, receive only a portion of these ores mixed with others in their manufacture. Sweden produces also a large quantity of iron suitable for steel, but of inferior rank to the above; they are technically termed 2d and 3d marks. The ores from which the Swedish irons are produced, are almost wholly black oxides, usually containing from 50 to 60 per cent. of metal; they are very clean and pure, and might, if properly manufactured, produce finer iron than that generally obtained; their works are, in too many instances badly constructed, and the manufacture itself is so far from being perfect, that there is a great unnecessary waste in the manufacture of the pig-iron into bars, and also in the quantity of charcoal necessary to produce a

ton of iron; nevertheless, these commoner irons are sold for steel purposes. Recently some of the Swedish works have introduded our English charcoal refineries, and our mode of working, by which a sounder iron is obtained, and one free from adventitious matter. The price of L. is 36*l.*; GL. 33*l.*; OO. 33*l.*; CF. and W. 32*l.*; B. 30*l.*; Grid and Stembuck 24*l.*; the iron called 2d marks vary in price, according to their intrinsic quality, from 25*l.* to 18*l.* The 3rd marks from the latter price as low as 15*l.* per ton. Russia sends also a large supply of iron for steel purposes, of which the marks Kb. and IOP3 form the mass, being from 6000 to 7000 tons annually. This iron is of good medium quality, and sells readily at from 17*l.* to 19*l.* per ton. It is manufactured in the Ural district of Russia, by the usual charcoal-refinery process. A part appears, however, to have been puddled, using wood for fuel. In 1830 it was a question whether a puddling furnace could be so constructed as to admit of the use of wood. Berzelius was of opinion that it could not. During my residence in Styria and Carinthia, in 1832, I erected a puddling furnace at the works of Mr. Rosthorn, in Wolfsberg, in which wood was used as a fuel. I experienced no difficulty in working it, and it produced very good iron, with a large economy of fuel when compared with the charcoal-refinery process. In this furnace I puddled 30 cwts. of charcoal iron in 24 hours. During this time I consumed 180 cubic ft. of wood, as usually measured in the forest, equal to about 1½ cord our measure. The blooms hammered very solid, and the waste 10 per cent. The furnace was a small one, and the fire-room much larger than that used for coal. Since this trial, several works have used the process, both in Sweden and Austria, but it has not become general. By this plan an excellent steel iron can be produced. Steel iron may also be produced direct from the rich ores of this and other countries. For this process Mr. Clay obtained the first patent; it was tried in Liverpool, but was unsuccessful, first, because he could not sufficiently deoxidize the ore, and subsequently, in its manufacture into malleable iron, he could not get rid of the earthy matter—this rendered his iron unfit for steel, as well as ordinary purposes. I obtained the next patent, in which I provided for a more ample deoxidation of the ore, and also for the separation of the earthy matter from the metallic—this iron made good steel. There exist a variety of causes why this process has not been worked, although perfect in itself; it is, however, now about to be adopted for the production of steel-iron from the rich ores of England, which, if properly manufactured, will produce an excellent steel. Since this important branch of manufacture is becoming daily of greater importance, every step towards the production of fine steel iron in the country should be encouraged, inasmuch as it makes our own resources available for our wants.

In the manufacture of common steel, particularly that for railway springs, a very large quantity of steel iron is produced from

English materials. Of this kind of iron not less than 15,000 tons are annually consumed in Sheffield for springs and common hardware. This iron is produced from the coke-made pig iron, by puddling, during which process substances are added, which, although not always the same, yet produce nearly similar effects.

Oxide of manganese, salt, sulphuric acid, and clay, mixed together, formed the patented substance of Dr. Schafhaeutl, by the addition of which into the puddling furnace the metal becomes freed in a great measure from the earthy matter contained in the crude iron, and a purer and denser iron is produced. It is well known that the process of puddling and rolling was the invention of Mr. Cort, of Gosport, it was introduced in 1784; before which period the charcoal finery alone was used. The invention opened a new and extensive field for the industry of the nation; coal became the medium of the manufacture of wrought-iron instead of charcoal; the process has expanded the production of this kingdom from 17,000 tons in 1740, to 3,000,000 tons in 1854. The facility with which malleable iron can be produced with coal has caused the erection of magnificent and colossal iron-werks, finding profiable occupation for a great number of men, and producing throughout the ramifications of its manufacture, and its subsequent uses, an amount of wealth almost incalculable. This is somewhat foreign to the subject, excepting that, by the use of this invention, the steel iron market is annually supplied with 15,000 tons so puddled; and to me it is a pleasure, as it is a pride, to bring forward to public notice the invention of a man which has produced such astonishing results in our works, our railways and steam navigation.

At present we are largely indebted to Sweden for our supply of suitable iron for the manufacture of steel.

The following is a statement of our importation since 1845:

1845	Tons 18,607	1850	Tons 28,096
1846	30,840	1851	35,467
1847	28,264	1852	23,817
1848	20,438	1853	23,540
1849	26,607	1854	24,436

With very trifling exceptions, the whole of this iron is used for steel. The above figures give an average importation for 10 years of 26,011 tons, to which we must add the importation from Russia and the steel now made in England. I, therefore, estimate the weight of steel manufactured in England at 40,000 to 50,000 tons annually.

The fuel used in England for the manufacture of steel is entirely coal and coke. Coal is used in the converting furnace for heating the cases which contain the bar iron during its process of cementation. In a properly constructed furnace one ton of good hard coal is consumed in the conversion of one ton of iron, thus representing a consumption of 40,000 to 50,000 tons p. annum for this purpose.

To be continued.

DEPARTMENT OF PUBLIC IMPROVEMENT.

RAILROAD RECORD.

Pacific Railroad Mo. Open to Hermann.

The section of this work between Washington and Hermann—about 30 miles in length—was opened to the public on the 6th ult. The event was celebrated at Hermann by a large number of invited guests from St. Louis and other parts of the State. Daily trains are now running between St. Louis and Hermann, a distance of about 81 miles.

It is expected that the entire line to Jefferson City will be opened for travel in all next month, October.

North Missouri Railroad.

The section of this road between St. Louis and St. Charles was opened to the public for travel and business on the 20th ultimo.

New Orleans, Jackson and Great Northern Railroad.

We notice with much satisfaction, the energetic progress of that section of this great enterprise extending from Jackson to Canton. The iron rails for the entire road between those two points are already delivered at Vicksburg, and are in process of daily transshipment to this point over the Jackson and Vicksburg railway.

Messrs. Latimer, McKie & Co., the contractors for laying the rails have now an efficient force on the work, in charge of one of the most skillful track-layers in the South. They are now completing two miles per week or 8 miles per month, of this important link. Nothing can exceed the beauty or solidity of the track which is laid. A locomotive is already running on the finished portion; and by the first of November next, we expect to see our city in hourly connection with Canton. The freight and passenger traffic on this road will doubtless be large and highly remunerative.

The lower portion of the road from New Orleans to Jackson, is advancing with equal strides. Ninety-three miles are already finished and in operation. By the first of November or December next, it is confidently expected that twenty-one miles of the road above Osyka, on the State line, will be completed and in operation; thus making one hundred and nine miles of continuous railway from N. Orleans in the direction of Jackson. The business of the road is

daily increasing in importance and extent; and already pays a dividend of four per cent. on the cost of construction and equipment.

Under the able and successful management of Mr. Calhoun, the President of the company, and Mr. Hazelhurst, its Chief Engineer, the work goes bravely on. In twelve months, or at most before the first of January, 1857, with the liberal aid of the citizens of Mississippi, Canton and New Orleans may be in six hours safe and pleasant travel of each other. We hope no public spirited citizen of our State will turn a deaf ear to the eloquent appeals of the Hon. A. G. Brown, for material aid to this enterprise. As an investment of capital, it holds out the most certain prospects of an early and liberal return. Of the greatly improved facilities for business and travel, its completion to Jackson will afford, we need not speak. These must be apparent to any mind.—*Jackson Mississippian.*

Galveston and Red River Railroad.

Twenty-five miles of this road has been put under contract, and we are led to believe from publications on the subject, that the people of Texas are about to enter upon this great work in a spirit which will ensure success to the enterprise in a reasonable time.

The State has appropriated 10,240 acres to each mile of the road, and it would seem that there could be no doubt but that the work can be successfully prosecuted with so large a land capital to commence with, especially in a State where slave labor can be obtained for the purpose of preparing the road for the iron.

The Houston Telegraph, of July 18th, announced the arrival of the iron for a portion of the first section of this road, and adds that arrangements had been made for laying it down at an early day, and otherwise pushing the enterprise ahead as rapidly as possible.

The Galveston and Red River Railroad may be regarded as a part of our own system in Missouri, and we can but watch the movements of that company with great interest.

Medical Department of the University of the State of Missouri.

FACULTY.

JOHN S. MOORE, M. D., Professor of the Theory and Practice of Medicine and Pathology.

JOSEPH N. McDOWELL, M. D., Prof. of Surgery and Surgical Anatomy.

ABNER HOPTON, M. D., Prof. of Chemistry and Pharmacy.

JOHN BARNES, M. D., Prof. of Materia Medica, Therapeutics and Medical Botany.

JOHN T. HODGEN, M. D., Prof. of Anatomy—General and Special.

PAYTON SPENCE, M. D., Prof. of Physiology and Comparative Anatomy.

E. S. FRAZER, M. D., Prof. of Obstetrics and Diseases of Women and Children

JOSEPH N. McDOWELL, M. D., Prof. of Pathalogical Anatomy and Clinical Medicine.

I. DRAKE McDOWELL, M. D., Adjunct Professor of Surgery.

JOHN J. McDOWELL, M. D., Demonstrator of Anatomy.

CIRCULAR.*

The Medical Faculty of the UNIVERSITY OF THE STATE OF MISSOURI, in issuing their present Circular, congratulate the medical profession of the Mississippi Valley upon the great advantages and increasing facilities which the city of St. Louis presents to students of medicine, who are desirous of obtaining a practical and theoretical knowledge of the various departments of the profession.

The city of St. Louis, with its precincts, has a population of over one hundred and twenty thousand inhabitants, with the flattering prospect of a future increase exceeding that of any previous period of her existence. In addition to this permanent resident population, thousands of emigrants and others, yearly resort to St. Louis, from Europe, and all parts of our country. These, together with the resident poor of the city, keep our Hospitals filled, and our Dispensaries crowded with medical and surgical patients, of every grade and character—thus affording abundant and favorable opportunities for the investigation of disease, at the bedside, in all its varied aspects, equal, if not superior, to any other city west of the Alleghanies. The same causes productive of the hospital clinical facilities afford, also, an ample supply of anatomical material for the purposes of dissection.

The situation of St. Louis, on the western bank of the Mississippi river, between its head waters and its mouth, renders it easy of access from all the regions bordering on the Missouri and Mississippi rivers, and their tributaries, from Council Bluffs and Minnesota to the city of New Orleans.

The Chair of Obstetrics and Diseases of Women and Children, having besome vacant since the last Session, by the resignation of Prof. ALLEN, the Faculty have the pleasure to announce that they have selected to fill that important department, Dr. E. S. FRAZER, of this city, whose extensive practical experience in that particular branch of the paofession affords ample assurance that its duties will be executed with fidelity. It will also be seen that the Chair of Pathological Anatomy and Clinical Medicine, rendered vacant by the death of Prof. DEMING, is now filled by Prof. JOSEPH N. McDOWELL, who has long been known to the Profession as one of the ablest teachers in the West. Dr. I. DRAKE McDOWELL, a gentleman of talent, and of high attainments in the profession, has also, since the close of the last session, been appointed Adjunct Professor of Surgery.

Tee following special facilities for the acquisition of a thorough medical education are presented to the consideration of medical students by the Missouri University.

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* It is gratifying to know that the medical institutions of St. Louis are steadily and surely advancing in public estimation. The founders of these institutions have had many difficulties to contend with, and are entitled to much credit for the energy and perseverance displayed in placing each upon a permanent foundation. By reference to the catalogue of the class for 1854—'55, we find it amounting to 103. This must be regarded as quite encouraging, when we take into view its age and the competition with which it has to contend.—SEN. ED.

HOSPITALS.

City Hospital—In charge of Dr. Thomas Y. Banister, Resident Physician and Surgeon. This Institution, for the reception of destitute patients of both sexes, and of all ages, was built by the city authorities, in the year 1846, since which time, owing to the rapid increase in the population of the city, they have enlarged the building to more than double its original size. The present edifice is three stories and an attic in hight, 240 feet front, by 160 deep. It will accommodate between four and five hundred patients. The recent addition to the old building contains a large and commodious amphitheater, constructed by the city authorities, at the suggestion of the Resident Physician and Surgeon, Dr. Banister. It will conveniently seat four hundred persons, and in its internal arrangement has been planned with special reference to the accommodation of the medical and surgical clinics at the Hospital. This truly noble Institution far surpasses any of a similar character in the West, not only on account of the magnificent scale on which it has been projected, but also on account of the liberal provision which has been made to enable the medical students of the West to profit by an actual inspection and practical investigation, at the bed-side, of the diseases of the Mississippi Valley.

The Marine Hospital.—In charge of Dr. Geo. Johnson, Resident Physician. The buildings of this institution will be completed in a few weeks, when it will at once go into operation. Ample provision has been made for the reception of several hundred patients. Through the kindness of Dr. Johnson, the Medical Class of the Missouri University will be admitted to the medical and surgical wards of this Hospital. The Medical Faculty feel assured that Dr. Banister, of the City Hospital, and Dr. Johnson, of the Marine Hospital. will do all in their power to promote the comfort of medical studentsdur ing their attendance on the clinics at the Hospitals, and to enable them to obtain the full benefit of the knowledge and experience which may be acquired in the wards of the Institutions which are in their charge. The Medical and Surgical Clinics at the Hospitals will be delivered by Prof. McDowell. Students are admitted to the wards of the Hospitals free of any extra charge.

CITY DISPENSARY.

In the charge of the Medical Faculty of the Missouri University. In the summer of 1852, the City Council of the city of St. Louis passed an ordinance making a liberal appropriation of money for the establishment and support of a Dispensary, to be connected with the Medical Department of the Missouri University. In the fall of the same year this Dispensary was first opened for the reception of patients in the College buildings. From that time to the present, the number of those who apply for medical aid has rapidly increased, and now amounts to between two and three thousand annually. Admittance to the clinics at the Dispensary, free of extra charge.

PRACTICAL ANATOMY.

The facilities for obtaining subjects in the city of St. Louis makes this a point peculiarly inviting to the medical student. The supply of dissecting materials has hitherto been even more than sufficient, and consequently the classes have been furnished with an abundance at a more moderate charge than in most of the schools of our country. The dissecting Room is under the charge of the Professor and Demonstrator of Anatomy. It is ample and commodious, having been constructed with especial reference to the health and comfort of the student.

The Demonstrator will be in attendance at the Dissecting Room every night, to see that the classes are supplied with subjects; to give the necessary instructions as to the proper mode of conducting a dissection, and to explain the relative and special anatomy of the parts as they are brought to view by the knife. No labor will be spared in enabling the student to use the scalpel to the full extent of his wishes, and to prosecute his labors with every possible advantage to himself. The demonstrations of the more important organs, such as the brain, heart, liver, &c., are usually conducted in the Amphitheatre; all the classes being previously notified to attend. By this arrangement, each student is made acquainted not only with what he himself has traced out, but also with what is exposed by the labors of others.

MUSEUM.

The Anatomical Museum consists of an extensive collection of preparations of the human body, both dry and wet, illustrative of the osseous, the muscular, and the nervous system; the viscera, the development of the fœtus, &c., &c. The

dry preparations of the vascular and nervous system are numerous, and of the most superior workmanship. The Museum of NATURAL HISTORY—an immense collection, the fruits of years of persevering toil and labor of its founder, Prof. J. N. McDOWELL—is worthy of the especial consideration of medical students generally, and particularly of those who are desirous of prosecuting any one or more of the collateral sciences connected with the study of Medicine. The Mineralogy, Geology, Zoology (both living and extinct,) the Antiquities, &c., of our country, are all abundantly illustrated.

REGULATIONS FOR THE TERMS OF LECTURES, ETC.

The regular Lectures at this Institution will be delivered in the city of Saint Louis. They will commence on the 1st of November, 1855, and will be continued until the 1st of March, 1856. From the 1st of October, the Anatomical Rooms will be opened, and will receive the personal attention of the Professor of Anatomy and the Demonstrator. During the month of October, Preliminary Lectures will be delivered at the College, by the Professors, on subjects connected with their respective departments, and daily clinics will be delivered at the Hospitals.

FEES.—For a Full Course of Lectures	$105
For the Diploma	20
For the admission to the Dissecting Rooms and the Demonstrations .	10
For Matriculation	5

Comfortable Boarding can be obtained within a short distance of the College, for from two and a half to three dollars per week. Students and others desirous of further information, will please address the Dean of the Faculty.

The Pencil.—T. W. DODGE.

We have taken occasion, more than once, to speak of the FINE ARTS; and to urge upon our citizens the encouraging of them in our midst. Our sentiments, in regard to the Fine Arts, are, emphatically, in favor of their engouragement. Their tendency is to refine and ennoble the human mind; and to develop the better and kindlier feelings of the heart. For this, we would encourage them, and see them encouraged. And so, also, we are persuaded, would every one of our readers.

But all this is but preliminary to what we wish to say respecting Mr. T. W. DODGE, miniature painter, now among us. If not the first painter on ivory, in this country, Mr. DODGE may certainly be regarded second to none other. His likenesses are true to nature; and his pictures have that peculiar softness and delicacy of finish which evince great study and practice.

One of the best specimens of Mr. DODOE'S pencil, perhaps, is his likeness of Henry Clay; which may be seen at his rooms. This picture was taken three or four years, only, before the lamented statesman's death; and, although many likenesses had been taken of Mr. Clay, he is reported to have said, in reference to Mr. DODGES' painting of him, that *his* was the first that was not a caricature. This is, undeniably, high praise.

Many of our citizens have miniatures by Mr. DODGE'S pencil; and in no instance, have we heard of a failure on his part to give satisfaction. He has taken likenesses of the dead, from daguerreotypes and photographs; as well as of the living, from life.

Yielding to urgent requests, Mr. DODGE has, recently, colored crystalotypes. This he has done in a manner highly creditable to him as an artist. It will be observed—as might be expected from looking at his ivory pictures—that he brings out these likenesses admirably, and puts upon them a beautiful finish.

Next to a miniature on ivory, a colored photograph is perhaps the most desirable of likenesses; and, as Mr. DODGE will probably leave us in the fall, it would be well for those who cannot afford—or think they cannot afford—an ivory likeness, to call early on Mr. D. and get a colored crystalotype of themselves and friends. We should be pleased could Mr. DODGE be induced to remain with us as a permanent citizen, and hope his absence will be temporary.

A WORD TO OUR PATRONS.

Reference to the state of our accounts is painful to us, and must be disagreeable to our patrons, but the propriety of observing punctuality with publishers as well as with merchants and mechanics, is so obvious that we are persuaded that none of our subscribers can be offended by being reminded of their delinquency. There are accounts due to this office which have been standing for many years, some even from the commencement of the work, in 1848; and yet we doubt not but that the most, and perhaps all, of those individuals are punctual in their ordinary transactions. It is true that our subscribers generally pay promptly when called on by collectors, but did they know the cost of collecting these small dues, we do sincerely believe that many of them would blush at the injustice of withholding payment until waited upon by a collector.

It is our *desire* that no individual should subscribe to the Western Journal and Civilian who is not able to pay for it with perfect convenience, nor do we desire that any one should continue upon our list whenever he thinks the work is not worth its price.

We do not insist upon the cash system so far as to adopt the rule of cutting off subscribers in case payment is not promptly made, but we do insist that our patrons will afford us evidence of their appreciation of our labors by making remittances at their earliest convenience after their accounts are due.

THE

WESTERN JOURNAL

and Civilian.

VOL. XIV. October, 1855. 5.

ARTICLE I.

The Railroad System of Missouri.—The State Lien.

WHEN the Legislature had created corporations for the purpose of constructing a system of Railroads in Missouri, and settled the principle upon which the State should assist in accomplishing the work, we regarded all further discussion of the subject in public journals as unnecessary, and even improper. But time has developed many important facts—not foreseen—which seem to demand a modification of the plan in respect to State aid, and, hence, the subject is again open for public discussion.

Since our system of public improvement was adopted, labor, provisions and iron have all greatly advanced in price, whilst on the other hand the difficulty of obtaining money on State and corporation securities has increased, producing a state of things differing so widely from that intended to be provided for, that it is affirmed by those best informed, that unless the present financial relations between the State and the railroad companies can be modified, the work, at least on some of the roads, must be suspended until a more favorable time shall arrive for carrying it on. We do not undertake to affirm that this issue is inevitable; but upon the assumption that it cannot be avoided, the question arises, what ought the Legislature to do under the circumstances?

We have heard of but one plan suggested for the relief of the railroad companies from impending embarrassments. That is the proposition which was before the Legislature at its last session, to release or modify the State's Lien so as to enable the railroad companies to go into the money market with a first mortgage upon their roads. It was to be expected that a scheme which proposed

to give the foreign capitalist a preference over the State in the collection of claims for means advanced to build our roads, would be met by objections from individuals who habitually regard the State in the light of a sovereign power possessing interests peculiar to itself and antagonistic to the well-being of its constituents.

We admit that there may be exceptions to the doctrine, that the interests of the State and of its constituents as individuals are one and inseparable, still that must be regarded as the rule in all republican governments.

The railroads in Missouri have been so planned and located as to constitute the basis of a most thorough and complete system of public improvement. It is true that as trunk lines merely they do not afford equal facilities to every part of the State, but by means of branches, turnpikes and plankroads, every section will in time be accommodated, and it is obvious that unless the trunks can be built, the benefits which may be derived from the branches can never be enjoyed. Hence it is most clearly evident that the citizens of every part of the State, no matter how remote they may be from the trunk lines, are interested in their construction; and it is but just and reasonable that they, through the medium and agency of the State, should assist in laying the foundation of the system.

It is folly to talk or think of building great lines of railroads, such as we must have in Missouri to make them useful, without the aid of capital drawn from beyond the limits of the State. This fact must have been as well understood by all intelligent men at the time when our railroad system was adopted as it is now, and unless it can be shown that the amount of State bonds proposed to be issued is too large in proportion to the amount of means required to be raised by individuals to build the great trunk roads, then, we hold that the State in its corporate capacity should be placed on the same footing with individuals. In such case, the State should join in a common cause with the railroad companies, and share its just proportion of the risks incident to their respective enterprises. But, in case it should be found upon a thorough investigation of the subject, that the $9,000,000 which the State proposes to loan to the companies is more than its just proportion as the representative of the general interest, then it would be right that the State should be secured to the extent of the excess. Individuals will doubtless differ in their estimates in respect to the proportion of the means which the State ought to furnish, but we are persuaded

that upon mature consideration all must admit that the rule, as we have stated, is sound and just.

As a further illustration of these views, and to show that they have not been adopted and pressed into service, for this particular occasion, we copy the following paragraphs from an article which we wrote and published in September, 1850.*

The embarrassments that have been experienced by some of the States as a consequence of their connections with works of Internal Improvement admonish others to exercise great caution; but such cases are not to be regarded as proof that a State, acting on facts peculiar to itself, and wisely adopting the policy indicated by such facts may not afford substantial aid to works of Internal Improvement, with safety and profit to the community.

It may be admitted that where individual capital and enterprize are adequate to the accomplishment of works of Internal Improvement, it is better that the State should avoid all connection with such works; but cases may occur where owing to peculiarities in the physical character of the country and the social condition of the people, important works can not be accomplished without aid from the State; and in such cases three points are presented for consideration. First, is the work proposed calculated to promote the prosperity and general welfare of the community? second, in what manner shall the State afford assistance? and third, to what extent?

The State of Missouri possesses within her own limits the elements of a great empire; her mineral wealth may be regarded as inexhaustible, and her agricultural resources equal perhaps to those of any other State of the Union; but, for the want of facilities of transportation neither mining nor agriculture will pay a profit to the producer, except in a few favored locations adjacent to navigation. And, hence, the Iron, Coal and fertile soil of large districts lie undisturbed, and are as useless for all practical purposes as they would be were they at the bottom of the ocean. Nor can the products of these districts reach a market on terms that will enable the producers to compete successfully with more favored locations, without the construction of works of great magnitude; a short rail road would be of little utility in Missouri: and the individual capital that can be spared from the ordinary channels of business, is inadequate to the construction of lines of sufficient length to be useful to the community, or profitable to the stockholders. And, hence, it may be regarded as certain, that unless the State comes up to the aid of individual enterprise, no important work can be accomplished within its borders for many years to come; and it remains with the people to determine whether they will continue con-

* Vide Western Journal, vol. IV, page 351.

tented with their present condition until the neighboring States shall have become so densily inhabited as to compel a portion of their population to emigrate hither, and bring the means and enterprise to develop our resources, or, whether in view of their own individual and social interests—actuated by the progressive spirit of the age—they will without further delay, enter on a course of manly competition with their neighbors.

But should the Legislature incline to afford substantial aid to works of Internal Improvement, in what way, and, on what principle should the State proceed to accomplish the objects proposed? Not by undertaking the work wholly on its own account: for the history of all such enterprises shows that individuals can, and do manage such matters with better economy than can the State Governments through their agents. But if even this were not the case, yet, it is scarcely possible that the State can construct a work on its own account without doing injustice to a portion of its constituents. No improvement can be so lcoated as to afford equal advantages to all. For besides the commercial advantages, the real estate situate near the line of improvement may advance to double its former value, and still the fortunate owner bears no greater proportion of the burthen of constructing the work than one who, by reason of his remote situation, receives scarcely any benefit in return for his portion of the contribution.

This inequality of benefits accruing from works of Internal Improvement is inevitable; and a case could scarcely be conceived where, in our opinion, a State Government could embark in an enterprise of this nature without doing injustice to a portion of its constituents. But the State may become a stockholder to an extent commensurate with the general benefits of the improvement, without violating the principles of equality: especially, if the work be extensive, and calculated to constitute a basis of a general system. The policy, recently adopted by some of the States, authorizing counties to subscribe for railroad stock, is calculated to distribute both the burthens and advantages of constructing railways and other works of improvement more fairly among the people than any other principle yet discovered. For it frequently happens that individuals whose estates are situate near to lines of improvement, though possessing ample means, refuse to subscribe for stock, avoiding all the responsibilities and inconveniences connected with the enterprise, that they may be better able to avail themselves of the benefits accruing from its accomplishment. And some of these will not scruple even to profit by the misfortunes and embarrassments of those who, actuated by a generous public spirit, improvidently undertake more than they can accomplish. Justice demands that such individuals should be compelled to contribute their fair proportion to the improvement of the country; and this end can only be attained by State or county subscriptions. To the credit of the age, and happily for society, the individuals of this

class are generally in the minority; and it is therefore in the power of the majority to compel them to be useful, without violating the principles of justice.

We regard subscriptions for stock, on the part of the State, as being preferable to any other mode of encouraging works of Internal Improvement; but even subscriptions should, in our opinion, be limited to such works as are necessary to constitute the basis or outlines of a system. Let us first of all project a system, and then construct one or more of the main stems or trunks; and the branches will be made by individuals and counties wherever they find it to be their interest to do so. By adopting this policy, it will be in the power of the State to impart life to a system which, when once fairly under way, will be carried out by individual enterprise, while every branch that shall be added will tend to enhance the value of the stock belonging to the State.

The amount of stock which the State ought to take, will always depend upon so many circumstances that each case as it arises must furnish its own rule; but, in our opinion, it would not be sound policy for the State, in any case, to subscribe for stock exceeding one-fourth of the amount required to construct the work; for if individuals and counties immediately interested will not bear three-fourths of the burthen, it would be unjust to place more than one-fourth on those whose condition can scarcely be effected by the improvement. And, besides this, the State should not become a subscriber for stock in any work until individuals had given evidence of their confidence in its utility, by making liberal subscriptions

Scarcely any subject can be presented to the statesman or political economist, that requires more reflection or a greater degree of caution, than that perfecting a system of Internal Improvement, and establishing the principles upon which it shall be carried out. A radical error in the plan or in the mode of execution generally proves fatal; and is worse than doing nothing; for it stands in the way of a second effort. No error is more common than that of undertaking to do too much in a given time. This has occasioned as much embarrassment perhaps as all other cases combined. By withdrawing a large amount of capital and labor from their usual employment, derangement is produced in all the pursuits of the community; and while money is more difficult to obtain, labor, provisions and materials advance in price, until a revulsion takes place and the work of improvement is suspended for a time, or perhaps abandoned entirely. One must possess a thorough knowledge of the commerce and general resources of the community, before he can arrive at just conclusions in respect to the amount that may be applied, in a given time, to works of Internal Improvement, without embarrassing other pursuits. Time is an essential element in all calculations relating to what man is capable of performing; limit his action to a day or a year and you limit his power: the crowning act of a great achievement may be performed perhaps in

a moment; but in most cases that act is one of a series that have given employment to the time and talents of the individual for many years. No great work could be accomplished in Missouri in one, nor, perhaps, in ten years without the aid of foreign capital; but if we were to commence on a proper system and pursue it steadily, we might, in time, by the use of our own means, achieve all that can reasonably be desired. But are the people of Missouri willing to wait on this slow process, while they labor in competition with producers in other States, who enjoy greater facilities of transportation? We know that there is a respectable portion of our citizens who are prepared to oppose any and every proposition to connect the State, in any way whatever, with works of Internal Improvement; and our principal object in discussing the subject, is to ascertain, if possible, whether a majority of the State entertain similar views.

We believe that the subject has not been fairly discussed. The friends of the measure have not been sufficiently explicit in defining the nature and extent of their plans; and, the opposers assuming that their policy is calculated to involve the State in inextricable embarrassments, the argument between the parties has proceeded without an issue. In justice to themselves and their cause, those who claim assistance from the State, should show that their views are consistent with the principles of equality, and that they ask nothing that may not be granted with safety.

Should it be proposed to construct a railway from one end of the State to the other, all must admit that every part of the community would be benefitted, to some extent, by the improvement; and therefore, it would be just that all should bear a portion of its cost. And, in such case, should those more immediately interested in the work subscribe for nine tenths of the stock, would it be unreasonable to require that the State should take the other tenth? She would be bound for nothing beyond the payment of her subscription and the debts of the company which her stock represented; and it would be reasonable to expect that after the improvement was completed the dividends would pay the interest on the amount invested.

This is a fair exposition of the principle which we advocate, and which, we believe, may be adopted with safety to the community.

It is not a sufficient answer to our views to say that, in every case where States have undertaken works of improvement on their own account it has been the cause of embarrassments, and, that the works themselves have been badly managed. We advocate no such policy; nor, should we approve of a proposition to loan the credit of the State to an incorporated company. We simply propose that the State should become a subscriber for stock, on the same terms that citizens or corporations subscribe, and that she subscribe for no more than may be deemed necessary to ensure the accomplishment of the work.

We feel persuaded that there is nothing in our proposition that the most cautious individual can object to, with reason; and we cannot think otherwise than that, if this subject were fully and fairly discussed, it would receive the approbation of a majority of the people. For we are unwilling to believe that they are so wedded to old prejudices, so destitute of State pride, or, so regardless of individual interest, as to oppose a measure just in itself, and, withal, calculated to ameliorate their individual and social condition.

It may be proper to observe that we did not specify the nature of our objections to the financial plan which the Legislature subsequently adopted, because at the time when we published the article no plan whatever had been suggested—at least we had seen none —and all that we could do with propriety, as the matter then stood, was to suggest our own views for the consideration of the public. We believed that this was a vital point in our railroad system, and desired that it should be fully discussed. But our article fell dead from the press, for we never knew that it received the slightest attention from the public press, from individuals, or from the Legislature.

It is not our purpose in the present paper to enter into details, showing the condition of the several railroad companies, and the nature and extent of their wants: that is their province, and they will doubtless speak for themselves, at the proper time. Before concluding this paper, however, we will remark that, in our opinion, it is the true policy of the State to sustain each and all the lines of roads which have been commenced; for if the work on any one should be allowed to stop, injustice will be done to the inhabitants of the region in which it is located, especially if they should in any way be compelled to aid in building the others. We have read the reports of the respective companies with much care, and studied them in connection with the resources of the State, and we feel a strong conviction that, in case the State will release its lien and money can be obtained upon fair terms on mortgage, our whole railroad system can be carried out triumphantly. The main point is to keep them going on. For, about three years past, financial operations upon a large scale, for purposes of public works, have been difficult, but it is safe to calculate that one or two years more will produce a different state of things; and if our works can be continued until the change occurs, they can doubtless be carried through on the next financial tide.

No one, we think, who has carefully read the Western Journal, can justly charge us with rashness or a want of caution in respect to the undertaking of public works; but we cannot sympathise with those whose arguments we have read against the release of the State's lien. The evils of State debts and the miscarriage of a few railroad companies in other States, constitute their principal arguments. Such appeals are made too late: we think it might be shown that progress is the thing necessary to enable us to avoid the evils which are so much dreaded.

We have proceeded too far to stop. Our system is still *intact.* No great blunder has been committed that cannot be corrected. The financial embarrassments which paralyzed public works for a season, are passing away, and Missouri would stultify herself in the estimation of all who are acquainted with her resources, if she should become panic-stricken, and abandon her mighty projects at the present juncture, because there is a possibility that she may lose a part of the money loaned to the railroad companies.

But suppose the lien to be retained, and $9,000,000 should be expended, and the companies should then fail to pay interest, it is scarcely probable that the State would or could enforce its lien. A question would be raised between individuals who had invested their means in good faith to improve the condition of the country and the State as a corporation, and who can doubt but the sympathies of a majority of the people would be on the side of the stockholders? From our observation, we have known no case where a question of the kind has sprung up between a State and its constituents, where the interests of the former did not yield to those of the latter. So, after all, perfect security in such cases is not attainable, and every intelligent man knows that no great enterprise can be undertaken without incurring some degree of risk to those who invest their means in it; and were no works of public improvement to be commenced until the projectors could be ensured against all loss, there would be no more railroads built in this or any other country.

In presenting these views, we have only aimed to state the principles upon which the question touching the State's lien rests; we leave it to the railroad companies to furnish the facts, and to the Legislature to make the application.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 239, Vol. XIV, No. 4.

In the ensuing February of 1788, Wilkinson returned to Kentucky, from his first adventure to New Orleans,* by way of Charleston, in South Carolina.† This is a fair statement of the author's former sentiments on the subject of Wilkinson's first connection with the Spanish government, which excited a keen interest in the councils of the country, during the life time of that most deceitful and perfidious man. One whose arts and singular fascination of manners (for he was master of most polished and winning manners,) have hoodwinked some of the most perspicuous statesmen of our country.

But the veil has been recently lifted, if not torn aside, from these transactions; and they can now be placed before the public in the most conclusive and indubitable condition. For this unmasking of matters, which have puzzled and perplexed some of the acutest minds in the country, we are indebted, in the first place, to the enlightened spirit of the State of Louisiana; and in the second place, to the active and sagacious enquiries of *M. Charles Gayarre*, of that State.

The government of Louisiana, following the liberal and generous example of the State of New York, had directed application to be made to her ancient rulers, on the other side of the Atlantic, for copies of the correspondence between her colonial officers and the court of Spain. This mission was entrusted to *M. De Gayangos*, who was aided by *Romulus Saunders*, then American minister at Madrid; and the result has been to place at the seat of government of Louisiana, the Spanish originals of the colonial correspondences with the Spanish government, while Spain held possession of the country. This rich work of American history furnishes the following narrative of the treachery and traitorous adherence to Spanish interests of General James Wilkinson, from 1787 to 1798, if not longer.

Wilkinson on his first visit to New Orleans, in 1787, addressed a memorial to *Don Estevan Miro*, the Spanish governor, expati-

* Marshall, 283.
† Daniel Clark in the Memoir previously quoted.

ating upon the public interests of the western country, then principally inhabited in Kentucky and Tennessee, in connection with the Spanish province on the Mississippi; the right of the people of the upper country to the navigation of that stream, and the advantages which both parties might reap from commercial intercourse. This was the character of the memorial read by General Wilkinson before a Kentucky convention. An account of this memorial was communicated by Col. Thomas Marshall, of Kentucky, to General Washington, in February, 1789.*

But it now appears that the memorial addressed to the Spanish government, must have had much more significant passages than the one read before the Kentucky convention. Miro in a dispatch to his government, in 1788, says, among other matters, "that *the delivery up of Kentucky unto his Majesty's hands*, (meaning those of the king of Spain,) which is the main object to which Wilkinson has promised to devote himself, would forever constitute this province (Louisiana,) a rampart for the protection of New Spain."† This idea, that passages contained in the memorial addressed to Gov. Miro, were suppressed in that read to the Kentucky convention, independent of its own probability, is confirmed by the remark of Miro, in another of his dispatches to the home government, relating that Wilkinson in reading his memorial to the Kentucky convention, "has so completely bound himself, that, should he not be able to obtain the separation of Kentucky from the United States, it has become impossible for him to live in it, *unless he has suppressed, which is possible, some passages*, which might injure him."‡

The treasonable disaffection of Wilkinson to his own country, and corrupt subserviency to Spain, appear more conclusively from another passage, in one of Wilkinson's letters to the Spanish officers, quoted by them in an official communication, of 11th April, 1788, as follows: "I pray you (meaning Gov. Miro, and Navarro, the Intendant at New Orleans,) with the assurance all my predictions *are verifying themselves, and not a measure taken on both sides of the mountains* (meaning the Alleghanies,) *which does not conspire to favor ours.*"‖

* Hist. of Kentucky, App., 2d edit., 319.
† Gayarré, 199.
‡ Gayarré, 254.
‖ Idem, 206.

In concert with Wilkinson to show the people of Kentucky the advantages of a trade with New Orleans, the agents of Wilkinson, Daniel Clark, Sen., of New Orleans, and Major Dunn, of Kentucky, were permitted to take a cargo of eatables and dry goods destined for the Kentucky market, to the amount of $18,246.75, including the proceeds of a cargo of Kentucky tobacco sent by Wilkinson under Major Dunn, to the amount of $7,000. "I have written," says the governor, "to Wilkinson not to sell the goods at a higher price than they cost here; because it is highly important that this first essay should inspire the inhabitants of Kentucky with the most flattering hopes."*

It needs little remark to show that, if the goods had not been paid for by the Spanish government at New Orleans, it would not have presumed to fix the price at which they should be sold in Kentucky.

To confirm the corrupt adherence of Wilkinson to Spanish interests, another paragraph is selected from a letter addressed by him to Gov. Miro, of the 14th February, 1789. He speaks of the memorial, which he had been entrusted by the Kentucky convention to draft for the consideration of the old Congress, praying for admission into the Union, and the navigation of the Mississippi. Wilkinson says, "You will observe that the memorial to Congress was presented by me, and perhaps your first impression will be that of surprise at such a document having issued from the pen of a *good Spaniard.* But on further reflection, you will discover that my policy is to justify in the eyes of the world our *medidated separation* from the rest of the Union, and quiet the apprehensions of some friends in the Atlantic States."†

Again Wilkinson writes to Miro, "I deem it useless to mention to a gentleman well versed in political history that the great spring and prime mover in all negociations is *money.* Although not being authorized by you to do so, yet I found it necessary to use this lever, in order to confirm some of our eminent citizens in their attachment to our cause, and to supply others with the means of operating vigor. For these purposes I have *advanced* five thousand dollars out of my own funds, and half of this sum applied opportunely would attract Marshall and Muter on our side; but now,

* Idem, 220.
† Idem, 246.

it is impossible for me to disburse it."* This is amusing enough to those acquainted with Wilkinson's pecuniary delinquencies. He scarcely ever paid his own debts; was always embarrassed by them; so much so that when he descended the Ohio, in 1803, to take possession of Louisiana for the United States, he dared not land on the Kentucky shore, but held a levee on the Indiana side of the river, opposite to Louisville, in high parade—that this man, in the pinching time of Kentucky frugality, should wheedle the governor of Louisiana into the belief that he had *advanced* $5,000 to promote the interests of the king of Spain, would be laughable, if it were not treacherous. "Good Spaniard," as Wilkinson, the former aid-de-camp of Gates at the battle of Saratoga, was not ashamed to term himself, his knavery far exceeded his loyalty. Yet so overweening was the confidence of Miro in the fidelity of Wilkinson to Spanish interest, that he formally "recommends" to his court "that the $5,000 which Wilkinson declared having spent for the benefit of Spain, be *refunded* to him, and that he be further entrusted with the $2,500 which he asked for, to corrupt Marshall and Muter."†

It may be necessary to apprize the young reader of western history, that Spain had no more determined antagonists in Kentucky than Col. *Thomas Marshall,* the fellow soldier, the friend and correspondent of Washington, and the simple, unpretending *Muter*, the Chief Justice of Kentucky. They headed the country or American party in contrast with the Spanish party, in the Kentucky politics of 1788 and 1790. The memory of those men has not a stain of dishonor left upon it as patriots and good citizens. Col. Marshall, the father of the great Chief Justice, was one of those who apprized Washington of the movements of the Spanish party in Kentucky. Was he then likely to inform upon those, who are represented by Wilkinson as his associates?

But Wilkinson was not contented with claims upon the Spanish government for *advances made* and *funds to buy* up more Spanish adherents; but, as has been previously related, he entered into a contract with Gov. Miro to deliver tobacco in the king's stores at New Orleans, at the moderate advance of $9½ or $10 per hundred for tobacco which had cost him $2 per hundred in Kentucky.‡

* Idem, 240.
† Idem, 256.
‡ Marshall I, 183.

This was the corrupt contract so artfully used by Wilkinson to blind the military courts and the public; and so confirmed by the *ready* testimony of Spanish officers, to establish the fidelity of an American to his own country, who was at the same time a servant and instrument of their common master and employer. It was under this contract that Miro informs the Spanish government, on the 11th of April, 1789, that he had bought from the general, for the account of the royal treasury, $235,000 pounds of tobacco, for which transaction he begged the approbation of his Majesty, on the ground that it was important to keep the General contented."*

The final testimony against Wilkinson is the following extract from a letter of Miro's to the government at home, dated 22d of May, 1789, "Nevertheless I am of opinion that said Brigadier-General Wilkinson ought to be *retained* in the service of his Majesty with an annual pension of $2,000, which I have already proposed in my confidential dispatch, No. 46, because the inhabitants of Kentucky and the other establishments on the Ohio will not be able to undertake anything against this province *without his communicating it to us, and without his making at the same time all possible efforts to dissuade them from any bad designs against us, as he has already done repeatedly.*"†

Miro concludes this letter with the recommendation that a pension be granted to Sebastian,‡ "because I think it proper," says the governor, "to treat with this individual, who will be able to *enlighten* me on the conduct of Wilkinson, and what we have to expect from the plans of the said brigadier-general."

Well does Mr. Gayarre express his indignation at this bribery and treachery, in the following stern and disdainful language. "Thus everything was done according to the most approved rules laid down in the code of corruption: 'set a thief to catch a thief, and a spy after another spy.' Thus Wilkinson was employed to watch the Kentuckians, and Sebastian to betray his confederate Wilkinson; not a link wanting in the chain of infamy."‖

But if anything were wanting, after these details, to establish

* Idem, 256.

† Idem, 286.

‡ Judge Sebastian of the Court of Appeals of Kentucky; afterwards convicted before the House of Representatives of Kentucky, in 1806, of receiving this pension, while on the supreme bench of justice in the State.

‖ Gayarre.

the corruption and treachery of Wilkinson in his connection with the Spanish government at New Orleans, it may be found in the following language of Gov. Miro to Wilkinson. The latter had said in one of his letters, "that he had become an object of suspicion to his government; and that his situation was mortally painful, because while *abhorring* duplicity, he was obliged to dissemble, wherefore he was seeking for the occasion of professing himself publicly the *vassal* of his Catholic Majesty, in order to claim his protection in whatever public or private measures he might desire, to promote the interests of the crown."* To this *candid* and *loyal* address Miro replied, "I much regret that Washington and Congress suspect your connection with me, but it does not appear opportune that you declare yourself a *Spaniard* for the reasons you state. I am of opinion that this idea of yours is not convenient, and that, on the contrary, it might have prejudicial results, therefore *continue to dissemble and to work as you promise*, as I have above indicated."†

But as if debasement still had a lower depth than this hypocrisy, Wilkinson in 1790 writes to Miro, "You may be assured that the constant persecution of Congress can not produce the slightest impression on my attachment and zeal for the interests of Spain, which I shall always be ready to defend *with my tongue, my pen and my sword.*" It is only necessary to recollect that this language of subserviency to Spain proceeded from one who had stood high in the confidence of his country; had shared her honors; still *professed* himself a citizen of the United States, and officiously claimed the trust and confidence of his fellow-citizens of Kentucky in the political conventions of that harassed and embarrassed colony of Virginia.

This perfidy, under a most fair exterior, most prepossessing manners and brilliant talents, is sickening enough. Still there is another dark thread in the web of Wilkinson's treachery to the Kentuckians. They confided, almost spontaneously confided in the honor of a revolutionary officer; they were panting for the enjoyment of the navigation of the Mississippi, to save the produce of their labor from rotting on their hands; they were oppressed and harassed by Indian depredations; Wilkinson readily offered himself to try and procure the one, and protect them from the other. He

* Idem, 284.
† Idem, 284.

risked his life gallantly and successfully as a leader against the savage enemy of the country; and he professed to have procured from the Spanish government at New Orleans commercial privileges without intimating, in the slightest degree, that it was corruptly done, and for the purpose of separating them from the sacred league of the States. Yet while apparently exerting himself most strenuously, as he said, both at Danville in Kentucky, and New-Orleans, for the western enjoyment of this vital navigation; urging its indispensable importance on the minds and hearts of the people of Kentucky; pouring into their memorials to Congress and Virginia the most impassioned appeals; he was countermining himself with the governor of Louisiana in the following manner.

At the opening of this Spanish intrigue near the United States, through an agent sent to Kentucky, every means was using to persuade the people to emigrate to Louisiana, by promising lands without price, and liberty to import into New Orleans "property of any kind on paying a duty of 25 per cent."* This duty of importation was further reduced by Miro "to 15 per cent., which he reserved to himself the right of lowering as he might please, on behalf of such men among them (meaning the western people, and particularly the people of Frankland and Cumberland, now composing the State of Tennessee,) as might solicit that favor."†

But while Miro was pursuing this policy, in order to avert the hostility of the western people of the United States from the Spanish possessions, and Wilkinson was urging in Kentucky with all the artifices of eloquence and intrigue her natural right to the navigation of the Mississippi, this same Wilkinson was remonstrating with the Spanish governor against his indulgence and accommodation to western trade.

On the 26th of April, 1789, Wilkinson wrote to Miro as follows: "The general permission to export the products of this country, (meaning Kentucky,) through the Mississippi river, on paying a duty of 15 per cent., has worked the consequences I *feared;* because every motive of discontent having been thus removed, the political agitation has subsided; and to-day *there is not one word said about separation.* Nor are the effects of this *pernicious* system less fatal in relation to our plan of fostering emigration to Louisiana. Every year the inhabitants and landholders of these

* Idem, 197.

† Idem, 260.

parts had ever present to their minds the terrible prospect of seeing their produce perish on their hands for want of a market; but now they no longer have any such apprehensions, on account of the ready sale they find at New Orleans for the fruits of their labor, which circumstance has diffused universal satisfaction in this district." (meaning Kentucky.)

Again, "the pruriency of emigration has been soothed and allayed by the spirit of trade, which engrosses general attention, and there are many at this moment preparing cargoes for New Orleans, and who, under the pretext of settling in Lousiana, will procure to elude the payment of the aforesaid duty."*

This is the conduct of one who professes "to abhor *all duplicity*"—to regret being "obliged to *dissemble!*"—of a Kentucky advocate for the navigation of the Mississippi, and a Spanish pensioner, urging the governor of Louisiana by the most pressing motives of policy to prohibit that navigation! An old soldier of the American republic eager to avow himself a vassal of his most Catholic Majesty and a good Spaniard!

Such were the first humble steps in a trade which has now, in 1853, swelled to the enormous amount of 1,664,864 bales of cotton, of tobacco 93,715 hhds., of sugar 321,934 hhds.† Then sneaking by connivance and corruption on its way along an enemy's country on the right bank of the Mississippi, and also on both banks, below the 31st degree of N. L. though occupied as high as Walnut Hills, or the present Vicksburg, until 1798;‡ now pursuing its triumphant and overburdened course through our own country, on both banks of the great river—the real Rio Grande of the North from its head to the Gulf of Mexico.

To present this sketch of the opening of the Valley trade with New Orleans, the narrative has led the author past the establishment of the first printing presses in the Valley of the Ohio, the backwoods of America: an era almost as worthy of commemoration as the German invention of the divine art. If there are any characteristics of American liberty—of the passion of the people in all their various conditions of life, and sources of descent, they are a peculiar capacity for handling the axe and the rifle with an insatiable love of news conveyed by all imaginable methods of con-

* Idem, 277, 278.

† Western Journal, IV, 412, 417.

‡ Amer. State Papers, XX, 710.

veyance. To our republic, to the efficacy and formation of public opinion, which is so absolute in our popular form of government, the printing press is the very life blood, animating the heart and the whole system into sound and healthy movement. To injure or degrade this mighty machine of freedom ought ever to be viewed as high treason to the republic. The first press west of the Alleghany mountains was established in July, 1786, at Pittsburg, by JOHN SCULL and JOSEPH HALL, two poor young men. The first number of this first western paper appeared July 29, 1786, under the title of the "Pittsburg Gazette."* In addition to this important mechanical enterprise at Pittsburg, JOHN BRADFORD, an ingenious and enterprising citizen of Lexington, Ky., not brought up to the business of a printer, undertook this high step in political and intellectual improvement. There was not then a press on the western waters, but the one just chronicled, at Pittsburg. Nor was this more western establishment destitute of originality; several of the type were cut out of dogwood, and with this imperfect apparatus, on the 19th of August, 1787, JOHN and his brother FIELDING BRADFORD published the Kentucky Gazette. It was first a weekly paper, printed on a demi-sheet; this size was altered on the 1st of September following into a medium sheet, and afterwards it assumed one of greater dimensions. This name is still retained among the journals of the State, which in 1850 amounted to 62.

On the 17th of September, 1787, the fifth convention assembled at Danville, and unanimously decided for separating the District of Kentucky from Virginia, on the terms and conditions which had been prescribed by an Act of that State. An address was made to Congress, to admit the new State into the "Federal Union by the name of Kentucky, and the last day of December, 1788, was fixed for the termination of the authority of Virginia and the commencement of the new republic. This convention "requested the delegates to use their endeavors to have an inhabitant from the District appointed a delegate to Congress for the ensuing year." Under this recommendation, Mr. JOHN BROWN was chosen the first and only member of the old Congress under the Confederation from Kentucky. A testimonial of high confidence and honor worthy of proud recollection by his posterity.

This affair of popular conventions ran through many years, and has created some complaint of confusion (of which the author how-

* Am. Pioneer, I, 395. Western Annals, 1st edit., 287.

ever, is not sensible,)* in the account given by him in another work, that it is thought best to gather them under one point of view, without waiting for their exact chronological order.

The *first* informal assemblage of the people of the District took place in 1784, procured mostly at the instance of Col. Ben. Logan, in order to adopt measures to resist a threatened invasion by the Cherokees.†

Upon taking the situation of the District into consideration, this assembly discovered that no legal authority existed here to call out the militia for offensive purposes; there was no magazine of arms or ammunition beyond private supplies; nor any provisions or public funds to purchase them. The property of individuals was no longer subject to be impressed at a time of peace, as it had been during the late state of general war. The government of the State had already complained of expense, might refuse to pay for the expedition, "or even to compensate for real losses." Under these embarrassments the enterprise against the Cherokees was abandoned. The meeting, however, produced an effect much more important to the welfare of Kentucky, than any temporary military party could have done. In consequence of the discovery of the absence of any suitable legal and political organization, for the necessary purposes of so isolated a community, it was thought advisable to invite a convention of the representatives of the whole District in the next ensuing month. The invitation was complied with; and the representatives assembled at Danville, the temporary capital of the District, on the 27th of December, 1784. They organized themselves by electing SAMUEL McDOWELL as President and Thos. Todd as Clerk, officers repeatedly honored by similar appointments and other honors to the close of their lives.

This convention thought that the principal grievances resulting from its great distance from the seat of government, and consequent difficulty of military defence, could only be removed by a separation of the District from the parent State, and its erection into an equal and independent member of the American confederacy. They resolved by a decided majority in favor of applying to Virginia for an act to render Kentucky independent of Virginia; still with a deference due to the feelings and interests of a free people, which is the very essence of republican and popular government, as the

* Monette's History of the Valley of the Miss., vol.2, p. 171.

† Marshall, I, 190.

convention were not elected with a view to a political charge so fundamental, it forbore to make the application to Virginia. It, however, earnestly recommended the measure to the District, and to elect members at the ensuing general election, to meet in the following May [1785]. Our confederacy had not yet performed the process of moral swarming, in mutual harmony and peace, which it has since so often repeated, as to have familiarized to our minds a political operation of moral grandeur unknown to the eastern continent. There, the accession and separation of States has always been a work of strife and blood, with the exception of the union of Scotland and Ireland with England. Strange to relate at this time, abundantly as the press which was afterwards in 1787 established, and has since been diffused—wide, as Volney remarks, as the American settlements, no printing press yet existed in Kentucky. The circulation of the address of the convention was therefore a *written* invitation for the election of members to a *second* convention. April, 1785, brought together the double election for the legislature of the State and for a convention. By the 22d of the following May, the members assembled again at Danville, and resolved unanimously, 1. That a petition be presented to the Legislature of Virginia, praying that this District may be established into a State separate from Virginia; 2. That another convention be elected to meet at Danville on the second Monday of August, "to take further into their consideration the state of the District." By a third resolution, it was recommended that the election of deputies for the proposed convention ought to be on the principles of equal representation, by *numbers*, it is presumed, as the representation in the General Assembly of Virginia was founded on a territorial principle, in disregard of population.

[To be continued.]

Article III.

AN EXTRACT

FROM A FORTHCOMING WORK TO BE ENTITLED "TWENTY-FOUR YEARS' VIEW OF PALMYRA AND MARION COUNTY, IN MISSOURI."

By J. P. Rutter.

To this consummation [the ushering in of the Millenium alluded to in the last extract,] so devoutly to be wished, all hands proceeded to contribute their renewed efforts, and to redouble their diligence, cheered by the encouragements intimated above. The proceeds that had been raised at the East on a loan were expended in the purchase and entry of a large tract of fine land, mostly beautiful undulating prairie, situated about twelve miles southeast of the college, and six miles southwest of Palmyra, on which to erect a preparatory department to qualify the students to enter advantageously on a higher course of study at the college proper, or upper college, as it was denominated.

Meantime the prolific mind of Muldrow had struck out another of his large schemes, and he was about to cut down a bigger tree than ever. He and the Rev. James Gallaher formed a partnership, the purpose of which was to locate and build up a city in the Mississippi bottom, due east of Palmyra; the bottom which is low and subject to annual inundations of several feet in depth, is three miles wide; the distance from Palmyra to the river being six miles. The bottom grounds are knee-deep with mud and mire, the greater part of the year, when not covered with water, rendering it difficult to be passed over on horseback—much more unfit for human habitation at all, and still more unfit for the site of a city. It is intersected in every direction by deep lagoons of water, inhabited alone by frogs, crawfishes and musquitoes of mammoth size, who were the rightful owners and occupants time out of mind, and it never before entered into the mind of man to dispute their indisputable right of possession, much less to try to eject them; in fact, it was by universal consent looked upon as *free territory*—naturally so without the necessity of a Wilmot Proviso—where all such reptiles were undisturbed in their right of heritage, where they could croak and plunge in their native element of mud and water, without an effort being made to extinguish their title. In short, it was only adapted to animals of an amphibious nature, on whose domain man, not being an amphibious animal, had no desire to intrude,

and consequently it was public land, when there was to be seen any land at all. It was not supposed it would ever be entered, being considered entirely worthless for any purpose whatever.

This, however, was Muldrow's site for a splendid city. Such by this time was the opinion that Mr. Gallaher in common with all the friends and attachees of the college, had formed of Mr. Muldrow's superior foresight and management, that he not only fell into the plan with zeal, but actually furnished all the funds himself to make the entry of the whole bottom, which was entered in the joint names of Gallaher and Muldrow, [subject, of course, to the incumbrance of mud and water,] over the heads of the triumvirate lords of the manor, Messrs. Frog, Crawfish and Musquito, without any treaty stipulations, and against their consent and moreover against their peace and dignity, and greatly to their annoyance and disquiet. But being water nymphs, they perhaps invoked the spirit of the waters to avenge them of their adversaries for this act of flagrant injustice: and they were avenged, and that speedily.

The new proprietors proceeded to lay off a splendid city *on paper*—on an extensive scale, covering the whole bottom, delineating on their beautiful plat, the various blocks and spaces left for public use. Here and there were sites for churches; yonder one for a college, and there another for a female seminary, &c.

Meantime the other distinguished patrons of the college, of education and of the cause of God, being delighted with the country and its fine lands, were busily engaged in individual speculation in them, to aid the good cause whose vital interests had drawn them from their comfortable homes to endure the privations of the West as good soldiers of the cross. Dr. Ely and Mr. McKee made extensive purchases of lands at second hand. It was understood that each of them had brought with him one hundred thousand dollars, which was soon expended in purchases and entries of the public lands, in the new counties around and west of Marion. A city was laid off in Shelby county, west of Marion, and New York was honored with the distinction of having it for its namesake; it was about forty miles distant from Marion City. Another city was laid off by Mr. Muldrow, adjoining Marion College, and as *old* New York had been honored with a namesake, it was deemed altogether most right and proper that the people of Philadelphia should not be mortified with a *slight*, after having contributed so much to the good cause, in the person of Dr. Ely; so No. 3, in the catalogue of cities, was

called Philadelphia; another city was laid off adjoining the *lower college*, or preparatory department; and to be certain that the old Philadelphians might be clear of wounded feelings of jealousy, and as Dr. Ely had been a little more distinguished in the great cause than either of his reverend coadjutors, city No. 4 was called Ely.

The names being settled, there could not now possibly be anything that would stand in the way of future success, as every vestige of wounded feelings must now be obliterated. Active preparations were therefore made for another speedy embassy to the Atlantic States. Suitable maps of all the cities were made, and the route surveyed for a railroad, commencing on the Mississippi river in the city of Marion, running thence westwardly through railroad street to the city of Philadelphia, [with a branch to Ely city,] and from thence to the city of New York, to be completed thus far in a very short period, and to be continued before long to the western boundary of the State, running through the State capital. It was furthermore understood, that before the lapse of a long period of time it was to be continued to the base of the Rocky Mountains, and finally to the Pacific ocean.

Stand aside, ye Whitneys and Dr. Carvers, and other distinguished men of the East, to whom the honor of the origination of the idea of a railroad to the Pacific has been unjustly appropriated. William Muldrow, of Marion county, Mo., was long ahead of you all in the race for that distinguished honor. Yes, to the western born, illiterate, [save in the college of practical experience where he graduated with distinguished honor many years before,] we say, to him justly belongs the distinguished honor of first inventing that magnificent project—you have only stolen his thunder.

Mr. Muldrow has a peculiarly impressive manner of apparent earnestness in describing his projects, and of unfolding and explaining his plans, so much so indeed, that it is almost impossible to resist him; a stranger particularly, who did not know the extravagant temperament of his mind, was almost certain to become a convert to a belief in the truth of his pictures of the future grandeur of his air-built castles, so forcible is his manner and cogent his reasoning, and the air of plausibility he throws around and causes to pervade the whole. In fact, from his extreme sanguine temperament, he did no doubt in reality believe that the most of his extravagant anticipations would be realized. He is in the habit of using the words "just exactly" very frequently; he pronounces

them in a peculiar way, slowly and with much emphasis. Marion City was j-u-s-t e-x-a-c-t-l-y, sir, in the center of the United States territory, and would just exactly be the seat of the General Government, in time when the Pacific railroad should be built—they were just exactly going to depopulate St. Louis, and turn her large business houses into warehouses, granaries and barns for the reception of the produce collected by the Marion city merchants, where it would be stored away for reshipment. In short, St. Louis would answer Marion city a very good purpose as a convenient stopping place; a sort of half-way house, where the people of Marion city could have the use of so many large houses already built to their hands, and there would be done the little business of furnishing boatmen with liquor and provisions, which would draw off from Marion city the rougher class of society. In this way, St. Louis would be of great service to the seat of government, in draining off the dregs of customers, but nothing more.

They now proceeded to cut the timber off the track of the railroad from Marion city to New York, and to make a levee on the bank of the Mississippi at the city, to prevent its overflow. Large wages were given to workmen; a general stimulus began to pervade the whole country; the price of property of all kinds rapidly rose in value; men ceased to labor at all, at the old accustomed rates, and asked double prices. In short, the heads of the whole community appeared to be turned up side down, and every body seemed to think that their fortunes were made, that the golden age had indeed arrived. Hence a system of ruinous extravagance sprang up; men forsook their usual avocations, impatient to await the slow process of the ordinary course of the industrious business of life, and all embarked in the wildest schemes of speculation, by which they expected to jump into fortunes at once.

Mankind are essentially beings of imitation, and that distinguishing trait in the character of the race, to catch and adopt the practice of others, whether in the conduct of life or modes of thought and opinion, was as distinctly seen in the emulating scramble of this speculating mania, as it ever is in the fashionable world, in following with a blind adherence to the tyrany of fashionable show as imported by the leaders of the ton from London, Paris or Wall street, New York.

The improvement of clearing off the track of the railroad, and some show in throwing up a levee at Marion city having been made,

Muldrow and Ely started for the East; the former taking with him the plat of Marion city and of Philadelphia. In the meantime Ely and other prominent men had taken an interest in Marion City as additional partners with the original proprietors. Of course, Muldrow went much elated with the prospects before him; if he had achieved so much already in consequence of having been recommended by Dr. Nelson, and a few others comparatively unknown, what might he not expect to accomplish, when in addition thereto, he was vouched for, backed and supported by so many of the greatest men of the nation, of world-wide fame and influence? He would of course extend his business of cutting down big timber very greatly. So having taken the precaution to sharpen his axe, Jack Downing like, slinging it across his shoulder, off he started on his second pilgrimage to the land of the pilgrims. Sanguine as his temperament naturally is, his success this time, no doubt, astonished even himself, as it did all the world and the rest of mankind besides. He exhibited his maps, dilated on the bright prospects of Marion College, and of Missouri in general, and of Marion city, of future colossal proportions in particular. Pointed out on his beautiful map, which was unstained by a single speck of the mud of its illustrious prototype, and which looked like the perfect personification of a London or a Paris, the various blocks appropriated as sites and seats for the abode of the sciences, traced the line of railroad, and expatiated on the unparalleled prosperity awaiting the whole favored region of its locality, told of the *untold* wealth and magnificence speedily to spring up in this region, causing it to bloom and blossom as the rose, until the capitalists of New York and of Boston, as well as of other cities, catching the inspiration of the pervading mania, infused into them by the plausible fascination of Muldrow, made large purchases of lots in Marion city and Philadelphia, so that, if we were correctly informed, he then and there, during that trip in the cause of philanthropy, sold lots in Marion city, frog pond as it was, and is and is to come, to the amount of one hundred and fifty thousand dollars, and in Philadelphia to the amount of thirty-five thousand. He did not, however, receive all the money, but some of the purchasers were sharp enough to execute their notes or bonds payable only when certain improvements should have been completed in the embryo city, which Muldrow stipulated on his part to have done, such as the erection of a steam mill, a splendid building for a hotel, &c.

Muldrow's reputation as a great manager and business man had by this time become so well established in the East, that the great capitalists of New York and elsewhere, anxious to participate in the splendid speculations going on in this Eldorado of the West, placed large amounts of funds in his hands, as was understood at the time, about eighty thousand dollars to be expended in the entry of wild lands, at his discretion; and such was the unlimited confidence in his judgment and foresight, that they gave him one half of all the lands he might enter, which was to be entered in their joint names. This they did to get the benefit of his superior judgment in their selection, assured that they were making a speculation in thus, at any price securing his services. Dr. Ely also succeeded in obtaining a very large sum from various persons, which he was to lay out in wild lands, making the entries in the names of the various persons respectively: he receiving a certain per centum for making the entries; what that per cent. was we are not advised.

After the return of Muldrow and Ely from the east, they completely monopolized the business at the land office for some time, continually making vast entries of land, sometimes by whole townships at once. Ely, in particular, made most of his entries by whole townships, and that too, as we were informed, without ever having seen the land, taking good, bad and indifferent altogether, the poor hills and smooth prairies with no timber for miles as well as the fertile prairie and timbered tracts. In this way, we have no doubt, he threw away money enough for worthless lands, if judiciously expended for good lands alone, to have made a fortune itself. In fact, he and the rest of the eastern men were so completely captivated and intoxicated with the great charms of speculation and the acquisition of princely fortunes, that they ran wild in their frenzied zeal for suddenly acquired wealth. Having spent all their lives in the eastern cities, around which all land, however poor, is of immense value, and never having seen the West before, when they came, finding the country so beautiful, and the land so much more fertile than that in the East, they came to a premature conclusion in their excitement, that everything in the shape of land here, without regard to its quality, must inevitably in a short time become as valuable as it is in the East, without taking into the account the different circumstances attending the two sections of country, or considering the immense quantity of public lands in all the west-

ern States and Territories equally as fertile as it is here; all of which must become settled before there can be any great general rise in the value of lands. They, however, seemed to think that there was no land as good anywhere else, and that Marion county and the counties immediately around, must certainly be the very garden spot of the world. Accustomed to give their minds up exclusively to the contemplation of religious subjects, they were not qualified, unpractised as they were, to investigate correctly sublunary things; but when once introduced here, under the circumstances of the transit—one thing at least may be safely affirmed—that is, that so far as *devotion* alone is concerned, they with wonderful facility made the transition from one subject to the other, perhaps from the *Edenish* appearance of this country.

We now step back a little in our history, to record the acts and doings at Marion city. During the sojournings of Messrs. Ely and Muldrow in the East, they had made arrangements for a large number of persons, to whom they had sold lots, to come on in the spring and settle in the city, and commence to build it up at once; others were hired to work on the various objects of internal improvement connected with it.

Accordingly, on the opening of navigation, early in the spring, steamboat after steamboat arrived, freighted with cargoes of emigrants, many of them with timber for buildings already framed on board, ready to be erected on their arrival. And for a time there was much bustle and preparation for extensive improvements. But unfortunately, just at the dawn of prosperity, dire adversity stalked with its hideous and ghastly visage close at its heels. The elements, as if instigated by the injury inflicted on the original proprietors of the place, appeared to conspire against the city and its inhabitants, and seemed determined on revenge. The mighty father of waters commenced swelling its current, and wave after wave but added to its height and fury, until the whole city became submerged many feet beneath its turbulent flood. Consternation seized upon the inhabitants, who to escape drowning crowded the upper stories and garrets of their dwellings. One poor man, an emigrant and citizen of the *strange city*, but who had not made himself sufficiently acquainted with its geography, while quietly riding along one of the streets, the horse attempting to cross on a bridge one of the lagoons with which the city abounds, stepped off the side of the bridge, and the poor man was drowned, and that in broad day-

light. The citizens poured their anathemas and execrations on the head of Muldrow. From exposure to the water sickness ensued, many died; some made their escape in canoes, and nearly all left as soon as they were able; and *all* who had the means, as soon as the water subsided. And the aspiring aims of the magnificent city of Marion, like the puny efforts of the unfledged eaglet to imitate the lofty flight of its full grown species, instead of soaring aloft in mid air, and proudly looking down on the groveling creatures doomed to confinement to earth's dull surface, was compelled to exhaust itself in ineffectual flutterings and gloomy disappointment. So, instead of attaining the proud pre-eminence amongst her sister cities, which was boastingly predicted for her, with all her aspiration, she has never been able to elevate herself above the surface of the water that has *washed* out every vestige of her fancied grandeur, and she is remembered only as amongst the things that *were* before the *flood*, and is only useful as a monument to perpetuate the remembrance of the folly of her projectors; not a proud towering monument of marble pointing to the skies, but a low and filthy monument of *mud*.

There was a caricature shown about the time we have been considering, representing Ely and Muldrow in a canoe, with a long pole, feeling for the tops of the houses, Ely exclaiming exultingly: "Muldrow, I have found the top of one of the chimneys." Encouragement was likewise held out to the farmers, that corn cobs would thereafter bear a good price, as they would be in demand to stop the holes in the ground made by the crawfish, and thus keep the water from rising after the levee should be completed.

Article IV.

Review.—By Mann Butler.

COTTON IS KING: OR THE CULTURE OF COTTON AND ITS RELATIONS TO AGRICULTURE, MANUFACTURES AND COMMERCE, TO THE FREE COLORED PEOPLE AND THOSE WHO HOLD THAT SLAVERY IS IN ITSELF SINFUL. *By an American.* Cincinnati, 1855.

[Continued from p. 256.]

If, as has attempted to be shown by our author, that the free people of color have not been saved from the deepest degradation

* In presenting the concluding part of Mr. Butler's Review, we feel im-

of condition among those who style themselves par excellence their friends; if they are, in the words of a devoted abolitionist, "*rotting mentally* and *physically* in the cities," if abolition of slavery has been followed wherever it has been attempted, by ruin and social desolation; if the products of slave labor are now incorporated with the industry and business of the United States, and of the world, to amounts and consequences which mock all calculation that can not number the sands of the sea; what is to be done with this perplexing institution of slavery? Our author answers, as some of the wisest and most temperate answer, by *morally restraining* and *governing* the power reposed in the master, like every other human power; as the power of husband over wife, parent over child, master over his free born apprentice, and the power of political government over the subject. In no other way has Providence guarded the dearest and most important relations of social life. Not by municipal laws alone, even if they second the yearnings of the heart; not by avoiding all abuse and perversion of power, for abuse is necessarily incident to its possession. But the interests of life are guarded by both combined, the enlightened conscience and humane and merciful laws. Social condition and character can not be formed at the beck and will of political reformers; manners in all states of society are stronger than laws, and constantly override them. The slaves of the West Indies generally have been transferred directly from the bosom of African barbarism to a barbarism of most oppressive labor, scarcely superior in happiness or the means of social improvement to the one they had left.

The missionaries say that "the free colored people of Jamaica, for nearly three hundred years, were entirely without the gospel; and it gained a permanent footing among them, only at a few

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pelled by a sense of its merits to commend it to the careful perusal of our readers. We have not read "*Cotton is King*," but are prepared to say that aided by the rich resources of his own mind, the Reviewer has deduced from it one of the ablest papers we have read on the subject of slavery.

The well selected facts, the sound philosophy, and above all, the fervent patriotism and broad philanthropy displayed in these papers, commend them to the study of every true-hearted American. We can scarcely hope that those affected by the "madness of the times" will listen to reason. But to rational conservative minds, and especially to the young men of America, we say, read and study the wisdom of Beatty, (whose papers we have published in previous volumes,) and Butler—venerable sages in whose hearts still lives and burns the holy flame which animated the Fathers of our glorious institutions. In these papers you have the wisdom of men—pure patriots—who have lived beyond the age when the desire for station is calculated to mislead the judgment. These effusions are to be regarded as the moral legacy of individuals, rich in whatever adorns the man, and the citizen of a republican government.—Senior Editor.

points, at their emancipation, twenty years ago; so that, when liberty reached them, the great mass of the Africans, in the British West Indies, were heathen."*

Our own colored race were, at their introduction into the British colonies, two hundred and thirty years ago, in the same condition of heathenism, rife with all the superstitious ignorance of Fetiche worship; laboring "under the disadvantages of *hereditary heathenism* and *involuntary servitude*." The superiority of our negroes to their countrymen, in the native wilds of Africa, is established, in the most incontrovertible manner, by our colony of Liberia. There, in all the intercourse of the Africo-Americans with the natives, their mental and physical superiority has been most signally established; they have raised themselves to an enviable altitude of mediators and arbiters, in most of the disputes among the barbarian chiefs of the coast of Africa, where they have settled. "The Republic of Liberia" has been "conducted from infancy to independence almost wholly by *liberated slaves*, and those who were born in the midst of slavery."† How comes this most remarkable result? Our author answers most forcibly: "Slavery is not an element of human progress, under which the mind necessarily becomes enlightened; but christianity is the *primary* element of progress, and can elevate the savage whether in bondage or freedom, if its principles are taught him in his youth." Both the West Indies and the United States began their system of slavery with savage men. For three hundred years, the slaves of the former were destitute of the gospel, and their barbarism was left to perpetuate itself. But in the United States the Africans were brought under the influence of christianity, on their first introduction, "and have continued to enjoy its teachings, in a greater or less degree, to the present moment.

The disappearance from our colored people of the heathen condition of the human mind—the incapacity to comprehend religious truths—and its continued existence among those of Jamaica, can now be understood." "But while all this must be admitted of the colored people of Jamaica, it is not true of those of our own country; for, long since, they have cast off the heathenism of their fathers, and have become enlightened in a very encouraging de-

* Page 149, and Rev. Mr. Philippo, for twenty years a missionary in Jamaica, in his "Jamaica, its past and present condition."

† P. 154.

gree. Hence it is, that the colored people of the United States, both bond and free, have made vastly greater progress than those of the British West Indies, in their knowledge of moral duties and the requirements of the gospel."* Time, long time, and favorable culture, are then essential to the improvement of the African race, as well as any other. And these are to be attained by the voluntary and cordial co-operation of the slaveholders with other friends of the slave.

Nothing under our government is to be expected, in favor of the slave, by *abuse and vituperation of his master.* This may go far, as it has already done, to inflame parties against one another; and by the common tendency of the human mind, to disaffect the slaveholder against his assailants and indispose him to adopt their projects. It will go further, and by inevitable retaliation and irritated feeling, will rivet the bonds of the slave tighter, than the generous spirit of a christian and republican people would naturally incline them, if unprovoked.

The American slaveholder is no West India planter, subject to the prejudices, or it may be the caprices of Conventions and Parliaments on this or on the other side of the Atlantic. He has been not only one hundred and fifty years the constitutional and legal owner of his slaves; but he is more, he is their political master, enacting the laws which govern the actions of both bond and free. How infatuated then the course of our abolitionists, who so far from appealing in christian and patriotic tones, to the conscience and the judgment of the slaveholder, condemn him absolutely; and assume the peremptory authority of a master! Do they forget or disregard the paramount obligation of a fair and free social compact, joyfully entered into at the time, as a city of refuge, the salvation of an expiring republic? Do they despise the administration of this republic, which for sixty odd years has excited the admiration of the world, and secured the greatest mass of social happiness on the earth? So much so has this been the case, that it has well been called "the last asylum of oppressed humanity."

But while the opinion that slavery is *malum per se*, or absolute wickedness, incapable of any indulgence or extenuation, may be entertained by some, whose worship of *their higher law* is so exclusive, as to override all other moral principles, all reverence for

* Pp. 148, 151.

national compacts, and respect for the lawful rights of fellow-countrymen, there is another party to this great social issue. There are some portions of this people quite as moral, as patriotic, and as gallant as their antagonists, who while they deplore the existence of slavery, submit to the necessities of their involuntary social position, and endeavor to infuse into the dominion entailed by it, all the mercy and consideration, of which it is so largely susceptible. Who while they dread and most reasonably abhor the manumission of a degraded race, among themselves, still feel bound by all their duties to God, and man, to render their power productive of good and enjoyment to their slaves. They appeal to the principles, which should regulate and govern all the forms of human power; the eternal principles of justice and right. These are as applicable to the relation of master and servant, as they are to the other relations of life. There always has existed, and I fear ever will continue, much abuse of power, in all these relations. It would, however, be feeble sense and bad logic that should maintain that these indispensable relations should be abolished, because they are, and must be subject, to abuse and perversion. This would be, at once, to impeach God's providence over the free and responsible agency of man.

Granted for the sake of argument, that domestic slavery is intrinsically and absolutely wrong and contrary to the rights of man, (as in my inmost soul I believe); still a conscientious master may well hesitate to renounce the power devolved upon him by the laws of his country, till some satisfactory provision should be made to secure him and his fellow-citizens from the mischiefs that have ever followed the manumission of unprepared masses of men. These dangers augment vastly, when the race to be liberated is both of a different color and despised species. This is a question of self-preservation with the present generation, of which they will, and ought to be, the chief judges.

Is there anything fallacious or sophistical in this argument? Is power over a human being as a servant, even for life, essentially different in its obligations and duties, from that over a wife, a child, an apprentice, or a subject of political government? If in some of these relations, the tenure of the power is less than the usual relation of master and slave, that does not affect the power itself, but its duration. If there are powerful instincts of nature, which cling around some of these connections, they are not absent from that

of master and servant. Moral powers must be regulated by moral means; they cannot be governed by artificial laws alone. It is contrary to the laws of nature which rule man's habits and thoughts.

How then is this direction to be given? Let the teachers of christianity answer; and let them act as Christ, and their primitive predecessors acted towards the slaves of the Roman empire. Let them act as succeeding generations of Christians acted towards the serfs of the middle ages of European history. Oppose sin and wickedness in all men, of all colors and conditions of life; inculcate the example and precepts of the Saviour—love and mercy to all men, and leave the fruit of such opposition and such teaching to the Ruler of the Universe.

Or, will the friends of the slave, by some grand heroic act, adopt an agreement of non-importation and non-consumption of slave products, from *all* parts of the world? Are they ready to perform their respective parts in a grand act of secession, (more violent than the exodus of the Puritans,) from all commercial society, for the exclusive intercourse, protection, and enjoyment of the free men, the pure and uncontaminated freemen of the universe? How shall this expatiation be effected? When shall this blessed union of those new saints, or American Quixotes, take place? We wait patiently for the answer.

But while this may be meditating, let me in sober earnestness, conjure my fellow-countrymen laboring under the infatuation of absolute, unqualified abolition, to take their answer, with God for their counsellor and witness, into solemn consideration. It is, believe me, no light flitting matter of occasional agitation; it is pregnant with the hopes and interests of centuries, for millions of your fellow citizens — members equal to yourselves of the same glorious confederacy. Ought you to expect to change the habits of thought, the manners, and laws of a people, free as yourselves, suddenly and violently? Are you ready for this anti-social object, to plunge this republic, the world's best hope of freedom, into the countless calamities of civil war and eventual despotism? Would you submit to a social interference so repugnant to all the feelings and habits of the human mind, at all alive to its rights? Should the planters of the South, under the influence of a similar infatuation, forbid your use of their cotton, their rice, their sugar and tobacco; and for that purpose, stop all intercourse with you, directly or indirectly, would you acquiesce in the outrage? Or would you

not invoke the equal liberties of the confederacy, and of human nature, in behalf of your violated rights?

Yet these same Southerners might well say, that such measures were but retaliatory for your own unconstitutional and forcible resistance to the enjoyment of their solemnly covenanted rights. If trade and commerce have not lost their humanizing charms, with the merchants, the sailors, and the fishermen of New England, for which they have so often shed their blood, let them protect their customers of the South, in their equal rights. Believe that the spirit which blazed in your own bosoms, at Lexington and Bunker Hill, and burnt still brighter at Saratoga, equally animates the breasts of your fellow-countrymen of the South. The men who, in much greater weakness than yourselves, still durst to defy the power of Great Britain, at Fort Moultrie, Guilford Court House, and the Eutaw Springs; submitted to harbor in swamps with Sumpter and Marion, and to bear the worst horrors of years of foreign oppression, have left the same sacred spirit in the hearts of their descendants. The blood of liberty still courses warm and fresh through all your hearts; believe no dishonor of one another; meditate no wrong. Return to the old peace and harmony that consecrated the efforts of our common fathers through centuries of trial and hardship, till they reached our present happiness and renown. Forget not that GREEN was second but to WASHINGTON; and that both consulted and fought for common liberty and independence. Let no extravagant sentiments of any description degrade the honors, which the fathers of the Republic have so gloriously achieved. Let Sparta keep her Helots, and Athens her freemen, but let Lacedemonians and Athenians be both banded together, heart and hand, at the Thermopylae and Marathon of America.

Believe me, the controversy between the sections of the republic is rapidly approaching the dread alternative—*of equal and peaceable rights, or—civil war.*

To my slaveholding fellow-countrymen let me also address a few words of sincere and well-meant advice. Claim no *divine* right of master over slave; let it lie in the same grave in which our author burys it, with the divine right of kings. Rest the maintenance of slavery on the actual expediency, the necessity, and constitutionality of your present, involuntary position. Continue to infuse into your treatment of the inferior race placed by Provid-

ence, in your power, and under your responsible care, every comfort and indulgence consistent with the relations of superiority and subordination, which, I know, must, at all hazards, be preserved. Cherish the noble and heavenly hope of ultimately elevating this degraded race, and through them, the African world, from their loathsome barbarism and misery. Give christian hope and principle the freeest scope among your slaves, as is now extensively done. Thus may the happiness of life here be secured, and a higher and eternal existence enjoyed by both master and slave. Prepare this unhappy race, by their probation in your service, to go free among you, and bless the land of their ancestors. Let this be the retribution of America to Africa, for the hardships of an enslaved existence of her children. For the able, masterly and temperate advocacy of these views, suffer me to press on the attention of all my fellow countrymen, both north and south, the work which has now received this inadequate, but most cordial review.

MANN BUTLER,
St. Louis, Mo.

ARTICLE V.

Minnesota.

SPEECH OF JUDGE MEEKER, BEFORE THE BENTON COUNTY AGRICULTURAL SOCIETY, AT ITS LATE SEMI-ANNUAL MEETING, IN THE TOWN OF SAUK RAPIDS.

I feel grateful, Farmers and Citizens of Benton County, for this flattering call — for the cordial welcome and warm reception with which I have been greeted by all since my arrival in your midst. It re-kindles old associations, revives old friendships, and fills my heart with emotions which those alone feel who, like us, were pioneers together on the Upper Mississippi, and who like us, too, have been earnestly engaged in laying the foundations of a State that will one day, if we are wise and prudent, stand among the foremost in the Union, for all that can make a people happy, intelligent and independent.

The elements of public prosperity, of the glory and greatness of a State, are few and simple. A good climate, a good soil, an intelligent people, ample provision for education, agriculture and a judicious and impartial system of public roads or thoroughfares, are the principal ones, if not all.

The influence of climate upon the character, habits and pursuits of mankind, are most controlling. It makes a people industrious or indolent, hardy or puny, boldly enterprising or timidly quiescent. By its influence one nation is, under God, exalted to the highest pitch of human power, and another is degraded to the lowest depths of barbaric stupidity. In some regions mind soars aloft towards the more genial abodes of the sky—in others it dwarfs and dwindles to the low and lazy instincts of mere animal being. In tropical countries the nations are all asleep in the darkest ignorance, neither free nor capable of freedom, without commerce, without courage, without science or patriotism. It is the land where disease dwells and death riots, where it is as difficult to teach the *people* religion or morals as their *monkeys*. In the other extreme, the frozen sons of Siberia, the Laplanders and Esquemaux, seem as useless and as low in the scale of being. It is only in the temperate parts, found only between the two extremes just mentioned, that man seems capable of attaining the high position in the scale of being which his benevolent Creator has assigned him during his career in Time. Here he is a *progressive*, moral and intellectual being, full of high hopes beyond to-day, and animated by the double sentiment of being remembered among men for his noble deeds, and rewarded in Heaven for his good ones. Here have lived Washington and Wellington, Marshall and Mansfield, Franklin and Bacon, Clay and Webster. Here are to be found the most lasting monuments of human liberty, the greatest achievements in literature, and the noblest examples of courage, patriotism and religion on record. Here commerce has built her navies, piled her cities, and linked the nations together in chains of gold. Here, too, man has learned to "venerate the plow." If the temperate regions are thus favored, and if the climate of Minnesota, as is now generally conceded, is as good as the best, if not the very best between the temperate zones on this continent, then has she one lasting element of State prosperity that no human power or revolution can rob her of.

The *soil* of Minnesota is good, far better than the soils of New England and the Middle States — and, as I often had occasion to remark, admirably distributed throughout the Territory. Thus the St. Croix, the Upper Mississippi, the St. Peter's, and the Blue Earth Valleys will soon become great farming districts. So that this prolific source of public prosperity, the true fountain of State or national wealth, is among the blessings we enjoy.

Some old philosopher has said that the ornaments of a State were its people, just as the stars were the ornaments of the heavens. They are also the *substance* of the State. They are the head that rules and directs its destinies—the arms that fight in battles, and the hand that tills its soil.—In short, the country is the body, but the citizens are the soul of the State.

The diffusion of intelligence, the moral and religious training of a people by providing common schools and colleges, constitute the only basis and give the only guaranty of security of life, liberty and property. Minnesota has already a princely endowment for this purpose, to wit: every 16th and every 36th section of her entire Territory having been set apart by Congress and forever consecrated to this cause. The lands so granted can never be withdrawn or lawfully withheld from the common school fund—no, not even by subsequent act of Congress, since by previous law they have *vested* in the Territory for school purposes. Let the speculator and others, therefore, beware how they settle on school lands and vainly dream that Congress will or ought to appropriate to their use what has been previously granted to their children and posterity. To my astonishment I have heard that towns have been laid out on such lands, and that the proprietors feel confident that by some special legislation in their behalf they will be enabled to hold on. Let the people take care that their children be not robbed of this rich inheritance, and let the Courts call the attention of the Grand Jurors of their Districts to this bold and unscrupulous violation of our penal laws.

Agriculture, which is the cultivation of the soil, as education is of the mind, must ever continue to be a leading interest in every prosperous State. Your Association, gentlemen, which is the earliest of the kind in Minnesota, is conclusive evidence that *you* justly regard it of the first importance. But there is another subject intimately connected with all those just enumerated, and in a special manner with Agriculture. I allude to a system of State thoroughfares or public roads.

By these I mean not merely turnpike-roads, but all other means of transport and carriage, also, as Lakes, Rivers, Canals and Railways. Without these, or some of these, neither our climate nor soil would be accessible or available to any considerable portion of the immigrating public, neither would the products of our fine lands and tall forests find a compensating market. This important subject has engaged the attention and excited the solicitude of the greatest men that have lived in this or the old world. Washington at an early day projected a system of roads and canals connecting Eastern with Western Virginia. Clinton, of New York, first launched the idea of the great Western Canal, by which the whole West now is made to pay tribute to that State. Henry Clay, animated with that same noble patriotism, led Kentucky to the adoption of a system of roads which has resulted in giving her splendid McAdamized ways radiating from a common center and branching through every section of the State. Caesar at the giddy hight of supreme power in the mightiest empire of ancient times, did not deem this subject beneath his notice, but having, as Plutarch intimates, subdued his foes and conquered the Republic, now commenced the work of self-emulation in spanning the Empire with

magnificent roads, some of them reaching to the remotest provinces, and measuring 4000 miles! Some of these roads are still extant and will yet continue for ages, lasting monuments of the skill and power of the wonderful people who built and once travelled them. Napoleon, when on the pinnacle of human power, did not fail, in the midst of contending tempests, to foresee the necessity of public roads to stimulate the industry, agriculture and commerce of his idol, France, and at once devised a plan of grand or imperial roads, which the vortex of public affairs that soon involved him only prevented him from executing.

The history of roads and thoroughfares is the history of the commerce, of the population and settlement of every State and kingdom in the world. The roads and thoroughfares were first discovered, and mankind in their migrations and wanderings followed them. Along ocean coasts, around the sea and lake shores, up and down the rivers in all countries, you will find the first settlements, the densest population and the largest cities. Thus Pekin and Canton are both situated on the Imperial or Grand Canal, besides the latter is connected with every commercial city on the globe, by the Ocean Roads issuing from her. London, the Commercial Metropolis of the world, owes less to her capital and enterprise than to the fact that she is the center of a radii of Ocean Roads pointing to every city and country on the globe. The same may be said of New York and Boston.

But the happiest illustration of this subject is to be found in our own country, where since the invention of steam propellors and iron railways, our population, with their cities, villages and settlements, have stretched across the continent, peopling every valley and plain with a rapidity and success without a parallel in the history of our race. Fifty years ago, the entire basin of the Mississippi was a little better than a howling wilderness, now, it contains a population of more than 10,000,000, nearly one-half of the entire population of the Union. Towns, cities and settlements, now brighten and beautify both banks of the great Father of Waters and his tributaries from the Falls of St. Anthony to the Delta—a consummation which would have been postponed at least a thousand years had it not have been for our vast river-roads, canals and railways, works of art and enterprise which mark the progress of the age, and in which Americans have taken the lead of every other nation. It is estimated that the several States in the Union have, in the aggregate no less than 25,000 miles of Railroad already completed—that is, enough if stretched in a continuous line to extend around our entire globe! Of this New England has about three thousand miles, and New York alone 2,500 completed and in operation, and all accomplished since 1830. So important has the subject of roads and thoroughfares become, that it may with safety be said to occupy more of public attention and of the legis-

lation of the country than any or all other measures that enlist and engross the mind of the law-maker.

In Minnesota, the great natural facilities for roads of every description, and the geographical position of our Territory, equally connected with the North, the South and the East, by our great river arteries that are navigable from our limits, render it doubly incumbent upon us to second the favors of nature by the early adoption of a system of roads that shall be more or less beneficial to every section of Minnesota.

Three mighty rivers issue from central Minnesota to as many cardinal points of the compass. The Red River, flowing north and draining the upper basin of the continent to Hudson's Bay, is a navigable stream from a point about one hundred miles from this center. The St. Louis River, the proper source of, and but another name for the St. Lawrence, rises to the north-east of this and emptying into Lake Superior by a harbor of the same name, traverses the Great Lakes till it loses both name and waters in the St. Lawrence. The Mississippi, great Father of Waters, and father, too, I would say, of all that is great and glorious in the mighty valley it drains, is itself the child, the legitimate offspring of Minnesota, still fed at her bosom, still furnished and *to be* furnished from her resources no small share of the noble tribute of water and wealth, it is destined in all time to bear toward the tropics. In addition to these advantages Minnesota has the Queen of all the harbors on our Great Lakes. It is at the mouth of the St. Louis River, and at the head or western extremity of Lake Superior. It will one day be a rich jewel in the treasure-house of Minnesota. This harbor is about six miles long by one and a quarter wide, with water sufficient to float any boats or shipping that may ever have occasion to clear there. It is admirably formed to protect commerce by the projection of what is called Minnesota point, a narrow peninsular extending to the inlet of the bay. It is as near the city of New-York as Chicago harbor, and now that the ship canal at St. Mary's is completed, our boats can reach Buffalo, the great point of departure for all the trade and travel north-west, from the mouth of the St. Louis, as soon as similar craft can reach the same point from Chicago! But this is not all. The completion of the canal at St. Mary's, now gives us an unbroken ship navigation to the Gulf of the St. Lawrence and the Atlantic; and whilst both can be reached as well as from Chicago, it is an important fact in our favor that only the same distance in miles and the same space in time are required to arrive from them at our harbor, penetrating as it does about four and a half meridian degrees or about 200 miles *further* west than Chicago, in a latitudinal line with Puget's Sound. This Sound, it is well known, is the grandest and safest harbor on the Pacific side of our Continent, and extends from the coast into the *interior* more than 140 miles seemingly to court a connection with Lake Superior. Impartial eyes can see at a glance that this is

the *commercial* route across the Continent, it being in the neighborhood of not more than 1300 or 1400 miles from one harbor to the other—two of the noblest and most capacious in the world.

In view of important events that seem already to "cast their shadows before," we want most of all things a speedy connection between this *interior* center and Lake Superior, between Sauk Rapids, the head of navigation on the upper Mississippi, and the harbor at the mouth of the St. Louis. We want a broad tread, *people's* road, built by the way of Mille Lac, branching at that point down Rum River to Anoka, and towards Morrison at the mouth of Crow Wing. At this place (Sauk Rapids) it would intersect the military road now about completed from Point Douglass to Fort Ripley; and crossing here a branch should pass down through the river counties on the west side, by St. Cloud and Monticello, Minneapolis and Fort Snelling. Another branch should pass off southerly in the direction of Fort Ridgely, penetrating the rich country drained by the two branches of the Crow River, whilst another should stretch away north-westerly towards the Big Bend of the Missouri. This is the plan or system of roads that the stress or force of circumstances, and justice to all parts of Minnesota now and hereafter would seem to indicate, and all parties, papers and politicians, as well as the *people*, should embrace it with zeal and determination. Already a road is approaching completion up the St. Croix in our Territory to *Superior in the State of Wisconsin.* This, of course, when finished, will aid much to develope that valley, but it will aid Wisconsin a great deal more, tho' built by our people and with money appropriated to Minnesota. We *must have a road from the Great Lake to our interior.*

By the route suggested, a road from Sauk Rapids to Superior harbor would be one hundred and twenty miles, and following the Point Douglass and Fort Ripley road, now finished, to and up the Platte River beyond Debue's, there would be 20 of the 120 miles already built. An appropriation of $30,000 from the next Congress would be an ample sum to complete it, and too, within eighteen months after the date of the appropriation. This part of the plan should be regarded as the first section of the grand Northern Emigrant Route to the Pacific; and in view of this and of the fact that it would strike at this point, the head of navigation on the Upper Mississippi, it should be built by the Nation, and that without delay. The branches, though equally important to the Territory, might be constructed more progressively.

The development and execution of the plan will more than double the facilities for reaching and peopling this Territory. Immigrants from the North Western States, the Lake towns and cities, and Canadas, can reach us without transhipments for one-half the expense they now incur, and without any risk whatever of the diseases so common among immigrants on the river routes. Immigrants

from beyond, from New York, New England and Europe, could embark for Minnesota from Buffalo and reach our Territory at the head of Lake Superior, at the same time they could heretofore have reached Chicago. All could then go, with their teams or by stage, 120 miles only, *all the time in Minnesota*, to this place and St. Cloud, thence down the Mississippi by steamers, or on either side of it by land, or onward in the direction of the Forks of Crow River, the St. Peters or Blue Earth Valley. This first section of the route to the Pacific thus opened and travelled, will lead to a speedy construction of a Railroad between this place and Superior, forming the Lake Branch of the Pacific Railroad, from Sauk Rapids, as suggested by Gov. Stevens.

Commercially the advantages to Minnesota of this thoroughfare would be immense, amounting to a complete diversion from present channels of dry goods imports. Since Minnesota was organized the goods imported to the Territory have been bought in St. Louis and Chicago, though more recently many of our merchants have made their purchases in New York and Boston, by the way of Chicago. Chicago receives her goods from New York, by the way of the Hudson River, Great Western Canal, and the Lakes, a distance that has already been stated to be as great as from the same great commercial emporium to our own harbor on Lake Supior, which as before announced, is about 120 miles from this place, the head of navigation on the Upper Mississippi and geographical center of the Territory. From Chicago to Galena by railroad is near 200 miles, and from the latter place to this point, by the way of St. Paul and St. Anthony, is about 510 miles more. In other words, goods from Chicago to this place are carried by land or a precarious navigation, 710 miles, that is 590 miles further, and this too at the cost of the consumer, than they *would* be if landed on our own soil at Lake Superior, whilst St. Anthony and St. Paul would at the same time get their goods, the one 480 miles and the other 490 miles nearer, and of course proportionably cheaper than they now do. *These are fixed facts and undeniably true.*

In the second place, what is the distance our dry goods are carried when bought in St. Louis? This noble city, too, receives her goods from the greatest commercial center of the Union, New York, the major part of them being shipped by the way of New Orleans, which, though three thousand five hundred miles, is the cheapest route, and the residue come principally by the way of Chicago, the Illinois Canal, and Illinois river; getting however a few light, fancy goods by Railroad transportation. Add, now, to 3500 miles, 910 more the distance from St. Louis to Sauk Rapids, and you have in round numbers 4410 miles of transportation and numberless transhipments to pay, for all the goods you buy that come this route, and they have formed a large portion of all you have consumed since you have been in the country! But take the *nearer* route by which St. Louis receives her goods from the Empire City.

By this they are first shipped to Chicago. From Chicago to Lasalle. by the Illinois Canal 96 miles, thence down the Illinois and the Mississippi to St. Louis, 350 miles more, in all 449 miles almost due south from Chicago to the place of wholesale to our merchants. This distance added to 910 miles, the distance from St. Louis to Sauk Rapids, makes a transportation, and a most difficult and uncertain one, too, of 1356 miles beyond Chicago before our goods reach their consumers, or 1236 further than it would require to get our goods from St. Louis harbor in Minnesota. Add to this the commissions and costs of transhipments at Chicago, Lasalle, St. Louis, and by lighters over the Rapids at Keokuk, and perhaps Davenport, and the numberless other delays on the Lower Mississippi, and you can form some idea of what your goods cost when they reach their destination. Can any presentation be more eloquent to prevail on Congress to open this thoroughfare, or any refutation of the absurd and barbarous usage of shipping goods to this Territory by such circuitous and costly routes, be more irresistible than the simple statement of these facts and figures? When, besides, it is recollected that the great God of Nature has given us the noblest Lake harbor on the continent, penetrating more than 200 miles further west than any other Lake harbor, and a continuous chain of inland seas with almost ocean depths, thence to the River and Gulf of St. Lawrence on the one hand, and to the great commercial emporium of the New World on the other!

But lest I forget the occasion that has elicited these remark, I will state briefly the bearing of this plan or *system* of roads upon farming or agricultural interests of Minnesota.

You have all, doubtless, noticed the fact that it is all along our rivers, and more particularly our roads, such as they have been, that the first farms have been opened and the first settlements in Minnesota have been made, and that these thoroughfares more than the character of the soil, have controlled the movements and location of immigrants in the Territory. No sooner has a road been projected in almost any direction, than our people are in motion to buy up the land and occupy the country on the line of the proposed route even in advance of its construction. A system of roads, like the one under consideration, would people with energetic farmers every section or district of land to be penetrated by its branches. Every quarter section of even third rate land would have a settler or "squatter" on it from here to Lake Superior, as soon as the route was surveyed. Real Estate of every description on the upper Mississippi to the beautiful country on Ottertail Lake would, also, receive a solid impetus in value and population. And the time will then have come that farms of every description of soil will be justly rated *higher* than any other lands of the same quality in the Territory, as you advance north in the direction of Lake Superior. First, because you will be *nearer* the inexhaustible market which the vast mineral districts which environ that Lake,

will establish for all and more than all you can raise. In the second place, you will be as near the East with your produce as Chicago, which is now the great grain depot of the North-West. Lastly the vast pineries to be penetrated by these roads will then bring the best of markets to your doors.

Such a system of roads should be built by the sovereign authority of the State or Country, as that would be presumed to take care that impartial justice be done to every section and settlement. With us, whilst we continue a Territory that authority is the Federal Government, and it is unreasonable to suppose that it will deal its favors partially and unfairly when the interests of *all* are justly represented to Congress.

The proper *time*, and I had almost said the *only* time these roads can be constructed, is during our Territorial being. If not built *then*, we may rest assured that we shall never live to see them finished, perhaps not even begun. The day we cease to be a Territorial Government, *that* day we shall cease to receive the copious supplies from Congress, hitherto so lavishly bestowed, though somewhat at random. Any movement for our admission as a State even for years, should be, and I am satisfied *would* be speedily and indignantly rebuked by our people.

But I have dwelt too long upon this subject, and fear I have trespassed upon the time of other speakers. I must conclude by thanking you for your very indulgent and flattering attention to the views I have uttered.—(*Minnesota Times.*

ARTICLE VI.

(From De Bow's Review.)

Religious Toleration.

Upon the subject of religious toleration, and against all interference with it, the Hon. Charles Gayarré, of Louisiana, one of the most distinguished citizens of that State, speaks in an address with which he has favored us, but which has not yet been published. This address was prepared to be delivered at the late convention in Philadelphia, had Judge Gayarré been allowed a seat.*

If you compel Louisiana to secede, you will secure for her as glorious a position as I could wish, if I took into consideration her

* We have often referred to Judge Gayarré's literary labors. They have given him a national reputation. In an elaborate review of his Spanish Domination in Louisiana, the North American Review, published at Boston, says: "Mr. Gayarré belongs to one of those historic families of Louisiana which send their roots far back to the days of the old Spanish and French occupation." "Of his faithfulness as a historian, we may be content with the testimony of Bancroft, who frequently quotes his book as of authority." In a late number of the Western Journal, published at St. Louis, Mann Butler, the historian of Kentucky, pays the highest possible compliment to Mr. Gayarré's works.

interests only, and not yours in common with hers. If you compel her to secede, you put her at the head of a party which is bound to be triumphant in the end. There will be but one main issue before the people. On our flag will be inscribed these words: "Down with foreign influence; liberty of conscience; no religious test; equality of rights." On yours will be read in letters as awful as those which flamed luridly on the walls of the Babylonian palace: "No liberty of conscience; political disabilities; a religious test; no equality of rights among native born Americans." There needs no prophet fired with divine inspiration, but human wisdom is sufficient, to foretell that, when the two flags meet, the party at whose head you are going to place Louisiana will gain a much more glorious victory than the one which is recorded in history under the name of the "Battle of New Orleans."

Louisiana acknowledges that, at the beginning of the contest, you may have the superiority of numbers on your side, but that is the only superiority she is willing to recognize. She will have enlisted on her side as much talent, patriotism and energy as you may possess—and she will have more than that, to make your part of the scales kick the beam; she will have justice, right, Christian toleration, open-hearted magnanimity, and political foresight on her side, and, as a necessary consequence, she will have the honest sympathies of the world in her favor—and what is of infinitely more importance, she will have the approbation and the countenance of Him who is never invoked in vain in the sruggle of the oppressed against the oppressor, and whose judgment, although on many occasions slow to manifest itself, is sure to be recorded at last in the annals of the human race for the warning of future generations.

But suppose that you succeed, will your success be of long duration? In what position will your administration be placed? At home, a million or two millions of active Catholic citizens ostracized by its policy, and therefore animated against it by the most deadly hatred. Around that formidable nucleus will gather all that immense portion of the population which may be opposed to you by a difference of opinion in politics, and from numberless other motives. With a host of bitterer enemies than any administration ever had at home, what will be your position abroad? You will have insulted one hundred and fifty millions of human beings who are in the habit of looking up to you for sympathy, and who are every day gravitating more or less towards emancipation from bondage. You encourage enslaved nations to break their chains, and to become free; and at the same time you tell them that, being Catholics, they are incapable of appreciating the blessings of self-government and of freedom! You tell England that she is a fool to trust Catholics, and that she is jeopardng her free institutions by having raised such wretches from the slough of humiliation in which she had kept them so long! You blame her for having

halted in the chase of persecution; and yet when she was hallooing her hounds in full pursuit of the game which you wish to start in your turn, you execrated her! Before the great French revolution, which began in 1789, Protestantism in France stood on a precarious footing. Suppose that the French government should return to its old line of policy—that of dragooning Protestants into Catholicism — could your administration venture on any friendly admonition or remonstrance? What right, for instance, would you have to advise the Turkish Sultan to treat his Moslem and Christian subjects with the same favor? What right would you have, at the head of the government, to do what it has always done, and to mediate in behalf of the oppressed? How could you exert a salutary influence with certain other nations, in trying to prevail upon them to put Protestants on a footing of equality with Catholics? Are we not daily interfering at Rome itself in favor of our Protestant citizens? With what good grace could you insist on the Pope granting to Americans the privilege of having a temple in the Eternal City, and to worship God as they please? Is it not worse for you to say to an American — You shall never fill any office of trust or profit in your own country because you are a Catholic, than for the Pope to say to a foreigner: You shall not build a Protestant temple in my dominions? If your administration should proclaim that all the American Catholics, citizens by birth, are to be excluded from office as *dangerous*, has not every other government on the face of the earth as strong a right to exclude foreign Protestants from its territory? What would you say if Austria was to declare to-morrow that none but Americans who are Catholics are permitted to travel through her territories? How could you remonstrate? If you have the right to ostracize the very natives of your soil, on the ground that being Catholics they are dangerous to your institutions, Austria would have a much stronger right to ostracize American Protestants on the same plea — that they are *dangerous* to her peculiar form of government. You judge for yourselves. She also would judge for herself, just as unmindful as you are of any other consideration than that of her fancied security or danger.

It is our national policy to claim a sort of protectorate over Mexico, and over all those republics which have sprung up in South America; this we claim as being their elder sister. You wish your influence to predominate in this continent over that of any European power. Do you think that it will further your views to proclaim from the White House and from the Capitol that all those nations are composed of imbecile wretches, unworthy of any office of trust or profit? Do you not think that you would put, by so doing, a double-edged weapon in the hands of your powerful and sleepless adversaries, England and France? A very wise and a fine thing it is, indeed, for those who desire to annex Cuba, to declare to those very beings whom they are goading into rebellion against

the government of Spain, that, when they become Americans, they shall be held unworthy of any office of trust or profit! But it is needless to give further illustrations. It is self-evident that our government would become powerless, at home and abroad, if any administration got into power on the platform which is sought to be established. Say what you please, disguise it as you like, if you retain in the constitution of the order the obnoxious clauses which I denounce to you as pregnant with so much mischief, and if you become the government, the cry will be that the government interferes with the right of conscience; it will be the truth, and the prestige of our republic will be lost throughout the world. On the day when the wing of every wind shall carry to the most distant regions of the earth the news that one of the principles of this government is the proscription of Catholics, a howl of dispair will be heard from the oppressed in every country. They will abandon forever the hope of our interfering in their favor, even through the exertion of moral influence, because they will feel that if we have the right to oppress our Catholic brethren on the ground that they are dangerous, all other governments may use the same arguments to justify their tyrannical acts.

The reasons which you give in support of your hostile position against Catholicism are the very same which, centuries ago, were used to justify the persecution of Christianity itself, so that you cannot even claim the merit of invention. You are plagiarists. If the Emperor Julian, if Theodoric the Goth, could rise from the tomb, they would complain of your stealing their thunder. But if you are disposed to borrow the logic of that long train of Caesars who have had to answer for the blood of so many martyrs, why do you not imitate its application? Amphitheatres and arenas may still be constructed; lions and tigers may still be found to tear human limbs; men and women, the aged and the young, are still ready to die rather than abjure their God; and if the old Roman populace may be wanted in vain to shout with joy at the exhilarating scene of torture, methinks that another race of beings might be seen rising from the bowels of the earth to witness an exhibition so gratifying to their nature, and so worthy of their character.

ARTICLE VII.

(From the American Agriculturist.)

The Destroyers of Our Grain.

THE GRAIN WEEVIL, THE HESSIAN FLY, ETC.

In looking over our Wheat reports to ascertain, if possible, the *relative* amount of damage the crop has received from each class of the prevailing destructive insects, we have been surprised at the confusion of terms or names used in the descriptions. Indeed, there seems to be no intelligent comprehension of the difference between these various insects. Thus, from the same town where all the injurious results appear to be traceable to the same cause, we have one writer saying, "We shall lose half our crop by the *weevil;*" another says, "The *fly* is doing us immense harm;" and another still—more cautious in making a distinction—writes, "Much injury was feared from the *insect*, but it will be less than was anticipated." These three reports from a single town are a fair sample of those from the country at large.

It would materially assist investigations upon these insects, and also convey a more definite idea of the character and amount of injury to be estimated, if editors and all others reporting upon this matter, would state exactly what kind of "insect" is at work in their several localities. To facilitate such a course we will give a brief description of some of the more generally destructive "insects" that prey especially upon the wheat crop. Among these are the *Grain Weevil*, the *Hessian fly*, the *Clear-winged fly*, or *Wheat Midge*, several varieties of *Grain Moth*, the *Chintz* or *Chink Bug*, &c.

THE GRAIN WEEVIL (*Calandra Granaria*, or *Curculio Granarius* of Linnæus.)—There is a wrong impression as to the character of this insect, and especially in reference to the time of its chief depredations. Quite early in the Spring, while wheat was not yet in blossom, reports came from some interior counties of Michigan that the *weevil* was thus early committing extensive depredations. From many other localities we heard similar reports, but a little later in the season. These were founded in misconception, for the truth is the weevil proper preys only upon the *grain*, commencing its ravages about the time of its ripening, and continuing them long after it is gathered into the granary; hence the name of *grain* or *granary weevil.*

The grain weevil in its perfect state is a dark or pitchy red, winged beetle or bug, about a line and a half, or one-eighth of an inch long. It has a slender proboscis or snout, curving a little downwards. The thorax, or chest, constitutes about one-half of its boyd, and is nearly as large as the abdomen, or belly, lying back of the middle ring. The thorax is punctured with a large

number of holes, giving it a rough appearance. Over the abdomen are delicate wings, which are shielded by wing-covers, having lines or furrows upon their upper surface running parallel with their length. The wings do not entirely cover the tip of the abdomen. The female punctures the ripening or ripened grain with her beak or rostrum and deposits one and sometimes two eggs. From the egg is hatched a grub or worm, which eats its way into the grain, closing up the aperture behind it with excrements so that it lies perfectly shielded from external injury. No mechanical action short of crushing the kernel can disturb the destroyer. They are effectually destroyed by kiln-drying the grain. This worm or grub grows to about one-twelfth of an inch in length; its body is white and soft, with nine rings around it. The head is small, round, yellow colored, and provided with cutting instruments. Arriving at maturity, which is not till after the flour portion of the wheat kernel has been principally devoured, this worm or larvæ assumes a nymph or chrysalis state, (like that between the worm and the butterfly,) and within two weeks after, the perfect weevil is formed, which eats its way out through the shell, and goes forth to deposit its eggs in turn upon other sound kernels. They are very productive, a single pair often multiplying to five or six thousand in a single year. Both the perfect insect and the grub feed upon the grain.

The Hessian Fly, (*Cecidomya destructor*,) is so named because introduced, or supposed to have been, by the Hessian soldiers employed by the British during the Revolutionary war. It was first discovered in the vicinity of New York, from which point it extended in all directions, its usual rate of advance being from 15 to 25 miles a year. The full grown *Hessian Fly* is nearly the size of a small musquito, which it resembles in general form. It has, however, no bill for sucking blood, and has proportionately a larger thorax or chest, and a smaller abdomen or belly than the musquito. There are two broods hatched annually, from eggs deposited in September and May. The full-grown fly deposits its eggs, which are very small reddish grains, in the upper channels of the wheat leaf, soon after the stalk begins to branch. As this takes place in September or early in October, late sown wheat usually escapes the Autumn egg. These eggs hatch out in about 15 days, producing a small worm, which works its way down between the leaf-sheath and stalk to a point below the surface of the ground, where, in the form of a white or spotted maggot, it lies concealed, and sucks out the juice of the plant. In a few weeks it arrives at full growth, and changes to a pupa or chrysalis state, of a cone-like or flaxseed shape. In this state it lies until the following Spring, when the perfect fly comes forth and deposits a second brood of eggs, which attack the wheat stalks above the ground, but near the lower joints. The juice extracted weakens the stalk, and it crinkles down. Its effects are not very visible until the stalk has attained nearly its full growth, when by going through a field the

extent of its depredations is generally known by the number of lodged or fallen stalks. The flaxseed grub when present may be found much earlier by carefully stripping down the leaf-sheath from the still green and upright stalk. Since the point of attack is usually below the gathered portion of the straw, the grub is left in the field, where it undergoes its transformation to come out the perfect fly again in Autumn. It is on this account that burning the stubble soon after harvest has proved a partial remedy against future attacks. There is a parasitic insect enemy, which multiplies faster than the Hessian fly, and to which we are indebted for the disappearance of this pest after its prevalence during a few years in any locality.

THE CLEAR-WINGED WHEAT FLY, (*Cecidomya Tritici.*)—This fly, by many called the MIDGE or WHEAT GNAT, resembles the Hessian fly in general form and size, but differs from it in having an orange-colored instead of black body, clear or transparent wings instead of dark; its antennæ or horns are longer and more fringed, its legs are longer and more slender, and its abdomen is covered with short hairs, and blunt at the extremity, instead of smooth and pointed like that of the Hessian fly. It undergoes its changes in the soil and attacks the blossoms and immature grain instead of the straw. These distinctions should be studied, for upon a clear understanding of them depends the treatment to be pursued.

The clear-winged wheat flies conceal themselves among the grass and leaves during clear midday, but morning, evening, and on cloudy days, they appear in swarms over a wheat field, and deposit their eggs in the heads. In the course of a week or so these eggs hatch out orange-colored maggots which feed upon the pollen of the flower, and finally attach themselves to the soft grain. They can not injure the kernel after it has acquired some degree of hardness. They do not make their appearance until the latter part of June or forepart of July, according to the latitude, and only attack the wheat while in a soft state, and on this account early wheat escapes injury. Using only the early, hardy varieties, or sowing early, and forcing to quick maturity with guano or other stimulating manures, are the best known means of escaping this insect. The yellow or orange-colored maggots are easily observed —there frequently being as many as twenty or thirty, or more of them, on a single wheat head. We have often found several of them on a single kernel, upon carefully removing the chaff or sheath. From the imperfect descriptions given, we think that much the greatest "insect" injury of the present season has been done by this species. During the latter part of July and the fore part of August, the maggots or worms obtain their full size, cast off their skins, descend to the ground and bury themselves half an inch or so below the surface, where they remain during the Winter, and come forth perfect flies the following season, to continue

and multiply their depredations. It is against this fly that sprinkling lime over the growing wheat, burning sulphur in the field, and such-like means, have proved a partial remedy.

The GRAIN MOTH (*Tinea Granella*,) when fully developed, is a small winged insect, a little resembling a butterfly in its general form. Upon its head is a white hairy tuft, and two short antennæ or horns. Its fore wings are mottled with black, white and intermediate colors, always with one black rectangular or square spot near the middle of the outer edge. The eggs are deposited in Spring, and again in the latter part of the Summer. The first brood are hatched in July, and take the form of a sixteen-legged caterpillar, with a naked soft body, nearly half an inch in length. They gnaw the surface of the grain, and cover it with a thick web, which sometimes fastens together a number of kernels. After a time these caterpillars spin a cocoon, in which they undergo the usual transformations, like those of the butterfly.

The ANGOUMOIS MOTH (*Anacampsis Cerealella*,) is another grain moth, which has proved immensely destructive in France, especially in the province of Angoumois, from whence it derives its name; and the same moth, or one very similar, has appeared in this country. The perfect insect is a very small moth, of a pale cinamon brown color, and satin luster. Its wings are long, narrow, broadly fringed and ash or lead colored. It has two thread-like antennæ or horns consisting of numerous bearded joints; a spiral tongue of moderate length, and two tapering feelers turned back over the head. It lays twenty or more eggs upon each of three or four wheat grains, and within a week these hatch out little worm-like caterpillars not thicker than a hair, which immediately disperse, each selecting a single grain and burrowing into its most tender part. Within the grain (and not upon the surface like the grain-moth,) it devours all the heart portion, then spins a web to divide its cell into two cavities, in one of which it deposits its excrements or rejected fragment of food, and in the other it undergoes its transformations preparatory to coming forth a perfect moth. These, like the grain weevil, may be destroyed by kiln-drying.

There are several other species of grain-moths, but they are yet imperfectly known, and have not been generally destructive.

CHINTZ or CHINCK BUG (*Lygæus Leucopterus.*) This insect has proved more destructive in Virginia and other Southern States than at the North. In its perfect state it has a black downy body about one-sixth of an inch in length, and is readily distinguished by its white wing-covers, upon each of which there is a short, black central line, and a large black oval spot upon the margin. They do not arrive at their perfect state until about the time the wheat is ready to cut. Previous to this they are without wings, and resemble the bed-bug in odor and color. It is at this time that they are most destructive. From the eggs laid in the ground the pre-

vious season, the young come forth in the Southern States in May —later at the West or North—at first of a bright red color, but changing with age to brown and black. They travel from field to field in immense columns, like Locusts, destroying everything as they proceed. They destroy wheat by attaching themselves to the green stalk and sucking out the entire moisture. They have been arrested in their course, by running ditches across the field before them, filling these with dry straw which is set on fire when the bugs are seen thereon. They have also been destroyed by burning the dry leaves of the forest, upon which they have settled.

ARTICLE VIII.

[From the Mining Magazine.]

Sebastopol and Hard Rocks.

By HENRY A. HILDRETH, Geologist and Mining Engineer.

The siege of Sebastopol by the allied armies of France, England, Turkey and Sardinia, presents many considerations worthy of attention by the student in geology and mining engineering. The remarkable resistance offered by the Russians enclosed in this series of fortifications to the best-appointed siege train the world has ever seen, managed too by the most skilful engineering talent which those scientific countries, France and England, could produce—has been written about, wondered about, and variously commented upon by the press—yet there is one view of this resistance which, either from design or otherwise, appears to have been totally overlooked—viz., the nature of the rocks upon which, and of which the Russian works are built. Men educated in the Polytechnic schools of France and England, and of our own West Point said, Gibraltar, San Juan d'Ulloa, and St. Jean d'Acre, have twice been taken by siege, as well as Rhodes, and the renowned Moro Castle of the Havana, and why do these Russian works offer such an unaccountable resistance? The answer, it appears to me, is, that fortifications built of the most tenacious rocks known to geologists, and adequately defended, have *never* been reduced by regular siege operations. Gibraltar, which is excavated in porphyry, that ranks with trap and basalt as to its hardness, has been twice captured, it is true, but in each instance by treachery. San Juan d'Ulloa is built of sandstone, and the Moro Castle and St. Jean d'Acre are, I am assured, built of limestone, both of which rocks are less resistant or more friable than basalt, trap and porphyry. A granite fort, bombarded by Lord Nelson's fleet, showed no signs of injury, although this rock is not esteemed as resistant as trap, basalt

and porphyry. It therefore appears evident, that works constructed of the softer rocks, such as limestone and sandstone, have been battered down by cannon balls and shells, in several instances, while works constructed of either of the most resistant rocks have seldom, if ever, been demolished and reduced by such means.

The rock which forms the harbor of Sebastopol, and upon which the forts that defend it are built, is *basalt*, a rock quite as hard as trap. This fact appears evident from all the maps of Sebastopol, the bold columnar structure of the shores of the Black Sea, near this port, and the outline of the harbor itself. Streams of this igneous rock, in a molten condition, have flowed downward towards the centre of the harbor from either shore, and at the extreme point of either of such streams of basalt, the Russians have constructed their marine batteries; and it appears probable, also, that the works themselves have been built of this extremely hard rock. Hence it is evident that the reason why the Allies have not yet been able to effect an impression upon these works, with all their artillery, is simply a geological one, directly to be referred to this hard rock, which prevents successful mining operations, for the purpose of blowing up the walls of the forts, and causes the cannon balls to fall as harmless as hail upon them. I have been confirmed in this geological opinion, formed from an examination of correct maps of Sebastopol, by the fact that a specimen of this rock, which has recently been sent to my friend, Lieutenant W.D. Porter, of the U. S. Navy, by one of the French officers, is unquestionably basalt. But it is not alone the nature of this rock that has proved a powerful means of defence. The Russians, it must be confessed, have not been at all behind the Allies in their appliance of all the improvements in modern science. At Silistria, they learned from the Turks the effectual resistance offered by earth-works, erected in advance of, and covered by, the stone works, and applied them with remarkable success to resist an approach by parallels. Whether Colonel Todtleben was the first to observe and apply this fact, or not, we have no direct information, but are led to infer the fact. The advantage of earth-works we have observed in our own country, in the defence of Fort Moultrie and Fort Brown.

To New York City must be given the credit of having first applied the hardest rocks to an economical purpose in this country. The well-known Russ pavement of Broadway, and other streets, owes its superior character to the fact that it is trap rock; and, it may be regarded as one of the most fortunate circumstances for this city, that from the high lands of the Nevisink to more than 50 miles up the Hudson, on its west bank, there occurs a stupendous trap dyke, full an eighth of a mile broad, as shown by the cut of the New Jersey Railroad, which will furnish for all coming time a desirable pavement for this great city and its suburbs, as well as for an article of export. It is vastly superior to granite for this purpose.

The cost of excavating, by mining operations, the various rocks in which the mineral lodes are found, consequent upon their degrees of hardness, may not be out of place in this connection. I take for a near approach to this cost, as it actually occurs, the estimates of an experienced Cornish mining Captain, accustomed to contract for such work. These estimates, it should be observed, are made sufficiently "large" to cover the actual expense of labor in excavating, tools, sharpening tools, powder, charcoal, candles, superintendence, and in fact all cost, except dressing the ore raised, and also including liberation of water to the depth of 200 feet. This expense is for *sinking* shafts and for *driving* levels. The cost of driving is the smallest sum named, and that of sinking the largest sum named. The estimate is for one fathom of 6 feet, viz.,

Trap and basalt.....from	$40	to	$50	per fathom.
Granite and porphyry.....from	20	to	25	"
Slate Rock.....from	20	to	30	"
Magnesian limestone.....from	17	to	20	"
Sandstone.....from	15	to	20	"
Lime rock.....from	15	to	20	"
Decomposed mica slate...from	3	to	9	"
Decomposed granite .....from	2	to	5	"

Article IX.

(From the U. S. Mining Journal.)

On the Manufacture of Steel as carried on in Great Britain and other Countries.

BY CHARLES SANDERSON.

Continued from p. 290.

Coke is used in the melting process—the consumption is on an average 65 cwts. per ton of ingots; although all iron is converted, and we can thus obtain the consumption of fuel, yet we have no means of correctly ascertaining the weight of cast-steel manufactured annually in England. I should estimate it as from 25,000 to 30,000 tons—this would give a consumption of 81,000 to 97,000 tons of coke; and assuming that the coal will produce 60 per cent. of coke, it will represent a consumption of 113,700 to 136,500 tons of coal.

In Germany, France and Austria, with trifling exceptions, steel is produced in a furnace similar to the charcoal refinery; it is termed raw or natural steel, deriving its carbon from the metal from which it is produced. Charcoal is the fuel used; the quantity is very variable depending in a great measure upon the dexterity of the

workman; we may, as a general average, estimate the consumption of 240 bushels per ton of raw steel produced. Having laid before you an estimate of the raw material used in the manufacture of steel, I shall now proceed to explain the processes which are used in various countries. The kinds of steel which are manufactured, are:—Natural steel, called raw steel or German steel; Paal steel, produced in Styria by a peculiar method; cemented or converted steel; cast steel, obtained by melting steel; puddled steel, obtained by puddling pig-iron in a peculiar way.

Natural or German steel is so called because it is produced direct from pig iron, the result of the fusion of the spathose iron ores alone or in a small degree mixed with the brown oxide; these ores produce a highly crystalline metal, called spiegle-eisen (looking-glass iron), on account of the very large crystals the metal presents. This crude iron contains about 4 per cent. of carbon, and from 4 to 5 per cent. of manganese. Karsten, Hassenfratz, Marcher, and Reamur, all advocate the use of gray pig iron for producing steel; indeed, state that first quality steel cannot be produced without it—that the object is to clear away all foreign matter, by working it in the furnace, to retain the carbon and combine it with the iron. This theory I hold to be incorrect although supported by such high authorities. Gray iron contains the maximum quantity of carbon, and consequently remains for a longer time in a state of fluidity than iron containing less carbons, the metal is then mixed up with not only the foreign matter it might itself contain, but also with that with which it might become mixed in the furnace in which it is worked. This prolonged working which is necessary to bring highly carbonised iron into a malleable state, increases the tendency to produce silicates of iron which, entering into competition with the steel during its production, renders it red short. Again, by this lengthened process, the metal becomes very tender and open in its grain; the molecules of silicate of iron which are produced will not unite with the true metallic part; and also whenever the molecular construction of iron or steel is destroyed by excessive heat it becomes unmalleable; both these are the causes of red shortness and also the want of strength when cold.

For these reasons I consider that gray pig iron is by no means the best for producing natural steel; and, for the same reasons I should not recommend the highly carbonized white iron, although it is now used in both Germany and France. In Austria, however, they have improved upon the general continental process; their pig iron is often highly carbonized, but they tap the metal from the blast-furnace into a round hole, and throwing a little water on the surface, they thus chill a small cake about half an inch; this is taken from the surface, and the same operation is performed until the whole is formed into cakes; these cakes are then piled edgewise in a furnace covered with charcoal and heated for 48 hours; by this process the carbon is very much discharged. By

using these cakes in the refining the steel is sooner made and is of better quality. In the opinions I have given to many German steel makers and in the advice I have offered them, I have endeavored to show that pig-iron can only be freed from its impurities whilst in a fluid state. I take advantage of this property of cast-iron, and previous to melting it in the steam refinery, I submit to a purification , in which process I seek to reduce the degree of carbonisation of the metal and to separate and dissolve the earthy matter with which it may be combined; I then obtain a purer metal for the production of steel; the metal itself being, to some extent, decarbonized, is sooner brought into nature, as it is termed—that is, it sooner becomes steel; the process being shorter and the metal itself being purer, there is less chance or opportunity for the formation of deleterious compounds which, becoming incorporated with the steel seriously injure its quality—of course steel manufactured with crude iron, either purified or not, of any defined quality, will inherit such quality, be it good or bad; art can, in some degree, remove these noxious qualities from the crude iron; chemistry has lent its powerful assistance, yet nature will maintain her sway and in all cases the good or bad qualities of the metal will be transmitted to the steel.

The furnaces in which the raw or natural steel is manufactured, are nearly the same as far as regards their general construction in all countries where such steel is produced, yet each country or even district has the fire in which the metal is worked differently constructed; we find, therefore, the German method, the Styrian, the Corinthian method, and many others, all producing steel from pig iron yet pursuing different modes of operation; these differences arise from the nature of the pig the country produces and the peculiar habits of the workmen. These modified processes do not affect the theory of the manufacture but they rather accommodate themselves to the peculiar character of the metal produced in the vicinity. In Siegen they use the white carbonized, manganesian metal, whilst in Austria a gray or mottled pig iron is used

The furnace is built in the same form as a common charcoal refinery.

When the fire is hot the first operation is to melt down a portion of pig-iron — say from 50 to 70 lbs., according as the pig iron contains more or less carbon; the charcoal is then pushed back from the upper part of the fire, and the blast which is then reduced, is allowed to play upon the surface of the metal, adding from time to time some hammer slack or rich cinder, the result of the previous loop. All these operations tend to decarbonise the metal to a certain extent; the mass begins to thicken and at length becomes solid, the workman then draws together the charcoal and melts down another portion of metal upon the cake; this operation renders the face of the cake again fluid, but the operation of decarbonization being repeated upon the second charge it also thick-

ens, incorporates itself with the previous cake, and the whole becomes hard; metal is again added until the loop is completed. During these successive operations the loop is never raised before the blast as it is in making iron, but it is drawn from the fire and hammered into a large bloom which is cut into several pieces, the ends being kept separated from the middle or more solid parts which are the best.

This operation, apparently so simple in itself, requires both skill and care; the workman has to judge as the operation proceeds of the amount of carbon which he has retained from the pig-iron; if too much, the result is a very raw, crude, untreatable steel; if too little, he obtains only a steelified iron. He has also to keep the cinder at a proper degree of fluidity, which is modified from time to time by the addition of quartz, old slags, &c. It is usual to keep from 2 to 3 inches of cinder on the face of the metal to protect it from the action of the blast. The fire itself is formed of iron plates and the two charcoal bottoms rise to within 9 inches of the tuyere, which is laid flatter than when iron is being made. The position of the tuyere causes the fire to work more slowly, but it ensures a better result.

The quantity of blast required is about 180 cubic feet per minute, at a pressure of 17 inches water gauge. Good workmen make 7 cwts. of steel in 17 hours. The waste of the pig-iron is from 20 to 25 per cent., and the quantity of charcoal consumed is 240 bushels per ton. The inclination of the tuyere is from 12 to 15 degrees. The flame of the fire is the best guide for the workman. During its working it should be a red bluish color. When it becomes white the fire is working too hot.

From this description of the process it will be evident that pig-iron will require a much longer time to decarbonise than the cakes of metal which have been roasted as already described; and, again it must be evident that a carbonised metal such as I have proposed must be the best to secure a good and equal quality to the steel since the purified metal is more homogeneous than the crude iron.

When, therefore, care has been taken in melting down each portion of metal and a complete and perfect layer of steel has been obtained after each successive melting, when the cinder has had due attention so that it has been neither too thick or thin, and the heat of the fire regulated or modified during the progressive stages of the process, a good result is obtained; a fine-grained steel is produced which draws under the hammer and hardens well. However good it may be, it possesses one great defect, it is this—during its manufacture iron is produced along with the steel and becomes so intimately mixed up with it that it injures its otherwise good qualities; the iron becomes, as it were, interlaced throughout the mass and thus destroys its hardening quality. When any tool or instrument is made from natural steel without it has been very well refined it will not receive a permanent cutting edge; the iron

part of the mass of course not being hard, the tool cuts only upon the steel portion, the edge very soon therefore becomes destroyed. There is another defect in natural steel, but it is of less importance. When too much carbon has been left, the steel is raw and coarse, and it draws very imperfectly under the hammer; the articles manufactured from such steel often break in hardening; thus it is evident that in producing the steel every care, skill, and attention, is required at the hands of the workman. These defects very materially affect the commercial value of the steel; the irregular quality secures no guarantee to the consumer that the tools shall be perfect, and consequently it is not used for the most important purposes; yet, where the raw steel is refined it becomes a very useful metal and is largely used in Westphalia for the manufacture of hardware, scythes, and even swords. It possesses a peculiarity of retaining its steel quality after repeated heating, arising from its carbon being, as it were, incorporated with each molecule of the mass. This renders it very useful for mining and many other purposes.

The raw steel being so imperfect is not considered so much an article of commerce with the manufacturer, but is sold to the steel refiners who sobmit it to a process of welding. The raw steel bloom is drawn into bars one or two inches wide and half an inch thick or less; a number of these are put together and welded; these bars are then thrown into water and they are broken into smaller pieces to examine the fracture; those bars which are equally steelified are mixed together. In manufacturing refined steel, the degree of hardness is selected to suit the kind of article which it is intended to make. A bar two or three feet long forms the top and bottom of the bundle, but the inside of the packet is filled with the small pieces of selected steel. This packet is then placed in a hollow fire and carefully covered from time to time with pounded clay, to form a coat over the metal and preserve it from the oxidating influence of the blast. When it is at a full welding heat it is placed under a hammer and made as sound and homogeneous as possible, it is again cut, doubled together, and again welded. For very fine articles the refining is increased by several doublings, but this is not carried at present to so great an extent as formerly, since cast steel is substituted, being in many cases cheaper. Although the refined natural steel is very largely consumed in Germany and also in Austria, yet a considerable quantity is exported to South America, the United States, and to Mexico. The Levant trade takes a large portion, and is supplied from the Styrian and Corinthian forges. This is shipped from Trieste; it is sold in boxes and bundles. That in boxes is marked No. 00, up to 4. The 00 is the smallest, being about $\frac{1}{4}$ an inch square; No. 4 about $\frac{1}{2}$ an inch; 0, 1, 2 and 3, being the intermediate sizes. It is broken into small pieces, about 3 to 7 inches long. In bundles of 100 lbs. the steel is drawn to various sizes and is so packed. A large por-

tion is sent to the East Indies, also to the United States, of this kind of steel. Halbach enjoys a high reputation, also Hassenclever, both Westphalian manufacturers.

The aveaage price of that sold in boxes is from £20 to £24 per ton; in bundles, from £17 to £20. The raw steel as sold to the refiners, from £15 to £18 per ton, whilst the refined steel increases in price according to the number of times it has been refined.

[To be continued.]

COMMERCIAL STATISTICS.

Commerce and Manufactures of Cincinnati.

The "Railroad Record," of the 13th ultimo, contains the "Annual Statement of the Commerce of Cincmdati; including a general view of her present position and future prospects; her situation; resources; growth; statistics, and advantages; agricultural, commercial, industrial, and financial." This statement is divided into several articles; and from the manner in which the subject is treated under the respective heads, the document forcibly reminds us of the advertisements which were published by speculators in paper towns in the South and West some twenty years ago.

The entire statement is too long for publication in our Journal; we have room only to notice the first article, and to copy some of the tables.

Article I. NATURAL SITE OF CINCINNATI. Under this head, we are informed where Cincinnati is located, and its site minutely described. We are also instructed as to its geographical and hydrographical relations, and informed that the "facts, geographical and commercial, prove that Cincinnati, by its central position, is naturally the metropolis of the Ohio Valley." And further, the author claims that the territory *exclusively within in the control* of Cincinnati trade comprises 220,000 square miles. This is an area which is 9,138 square miles larger than the States of Ohio, Indiana, Illinois, Kentucky and Tennessee. What will Louisville and Chicago say to this claim of *exclusive control* over a region from which they draw their chief support? But not content with her present domain, Cincinnati is preparing to annex additional territory, embracing 200,000 square miles more. This is to include all of Georgia and South Carolina, and the greater part of North Carolina and Virginia. Upon the whole this Annual statement is a literary curiosity, and we commend it to all who desire to be instructed in the art of puffing, and especially to those who have town sites for sale.

Tabular statement showing the increase and decrease in the leading articles exported and imported at Cincinnati during the year ending August 31, 1855, compared with the preceding year.

EXPORTS.			IMPORTS		
Articles.	Increase.	Decrease.	Articles.	Increase.	Decrease.
Apples, bls		$6,009	Apples, bls		$21,535
Alcohol, bls	$217,791		Beef, trcs	$73,408	
Beef, bls		49,778	Barley, bu	64,926	
Do., tcs	119,263		Beans, bu	21,600	
Butter, bls.		65,710	Butter, bls		373,328
Do., kegs		149,794	Do., f. & ks		61,268
Bagging, pcs.		10,000	Corn, bu	296,172	
Corn, bu	51,000		Cheese, bxs		99,769
Corn Meal, bls	7,000		Cotton, bales		303,351
Cheese, bxs		116,355	Coffee, sacks	601,294	
Cattle, head	217,850		Flour bls.	100,477	
Cotton, bales		223,211	Feathers, sks	79,868	
Coffee, sks	4,091		Fish, brs		63,977
Flour, bls		472,402	Hemp, bales		153,337
Feathers, sks		40,062	Hay, bales	52,412	
Grease		91,083	Hogs		661,400
Grass seed, bls		98,34	Iron, pcs	200,779	
Hay, bales	13,456		Do., tons		845,280
Hemp, bales		14,000	Lard, bls		372,706
Hides, lbs	4,500		Liquor, hd		102,780
Do., no		23,000	M'se, pk	4,635,240	
Iron, pcs	363,474		Do, tons.		1,568.140
Do., tons		567,810	Molasses, bls		85,307
Lard, bls		208 636	Oats, bu	48,577	
Do., kgs		90,757	Pork and Beef		227,052
Lard Oil, bls	84,122		Do., trcs	86,152	
Linseed, bls		37,240	Do., bls	68,246	
Molasses, bls	35,000		Bulk Pork		375,203
Oil Cake, tns		6,000	Pig Mtl, t		950,850
Oats. sks	49,000		Rye, bu	35,223	
Potatoes, brls	24,000		Rice, tcs	62,184	
Pork&Bacon, hhds	185,000		Sugar, hs		613,565
Do. bls		100,000	Salt, sacks	21,874	
Do., bxs	120,000		Do. bls		68,000
Do, Bulk, lbs		40,000	Tea, pkg	247,295	
Rope and T'ne		48,000	Tobacco, hs		255.226
Soap, bxs		13,000	Do, box		107,125
Sugar,	25,429		Wine, bl. & qr. cks		107,320
Flaxseed, bls		8,00	Do., bks. & br		42,768
Mdse, pkgs.		2,331,430	Wheat, bu	48,915	
Do., tns		2,386,807	Whisky, bls	984,036	
Liquors, brls		800,00	Lumber, feet		300,000
Manuf're, pcs		150.000	Coal, bu	53,130	
Produce, pks.		160,000			
Starch, bxs.		15.000			
Tobacco, kgs& bxs		75.000			
Do., hds.		340,000			
Whisky, brls	925,716				
Castings, pcs.		500.000			
Do., tons		94,000			

COMPARATIVE TABLE—of Manufactures in Cincinnati, as returned in the U. S. Censuses, for the years 1840 and 1850; with the number of Establishments classified; the number of Hands employed, and the Annual Value of Production; to which is added the Ratio of Increase, calculated on the basis of values:

CLASS.	1840.			1850.			
	No. of Estab'ts.	No. of Hands.	Annual Value of Production.	No. of Estab'ts	No. of Hands.	Annual Value of Production.	Ratio of Increase.
Manufactures of Wood	221	1,426	$2,095,857	395	3,798	$4,143,900	100 p. ct.
" " Iron	109	1,250	1,728,549	205	6,075	5,779,495	230 "
" " other Metals	261	466	658,040	111	921	1,209,190	90 "
" " Leather	204	888	1,068,700	418	2,472	2,675,150	150 "
" " Food	177	1,567	5,269.617	388	3,981	14,473,562	175 "
" " Clothing	174	1,217	2,009,850	351	3,198	4,325,500	115 "
" " Liquors and Drinks	17	110	307,500	155	963	5,240,930	1,600 "
" " Soap, Candles, &c	20	142	433,940	43	750	1,503,000	240 "
" " Hair, &c	24	198	166,400	31	275	211,800	15 "
" " Cotton, Wool, Linen & Hemp	38	359	411,190	61	880	1,181,000	185 "
" " Drugs, Paints & Chemicals	18	114	458,250	41	394	2,018,200	340 "
" " Earth and Stone	51	301	258,300	98	849	713,000	175 "
" " Building	332	1,568	953,267	658	4,565	3,681,650	290 "
" " Paper	47	512	669,600	51	1,073	1,850,540	180 "
" in Science and the Fine Arts	59	139	179,100	99	393	562,000	200 "
" of Carriages, Cars, &c	6	87	117,000	74	498	507,447	300 "
" " Miscellaneous	36	264	534,500	171	2,014	2,031,060	300 "
Aggregate	1,594	10,608	$17,328,65	3,350	33,098	$52,109,374	200 p. ct.

Exports from Cincinnati, for five years, commencing September 1, and ending August 31, each year.

Articles.	1850 1851	'51 '52	'52 '53	'53 '54	'54 '55
Apples, green, brls	8064	7223	6528	8239	13427
Alcohol	5038	7607	9669	18590	19956
Beef	19937	20015	26982	21054	17584
Do., tcrs	9355	9023	17315	7640	13977
Beans, brls	1832	1611	3929	3698	1297
Brooms, doz	8735	7934	11146	15401	18275
Butter, brls	3253	3606	3833	3603	1300
Do., frk. and kgs	36185	31395	42316	41595	24196
Bran, &c., sks	5789	10543	9986	15495	11456
Bagging, pcs	8212	12918	14057	6109	2485
Corn, sks	20137	51231	59132	39427	64344
Corn Meal, brls	2148	928	348	407	2772
Cheese, csks	26	71	49	23	4
Do., boxs	121756	150689	143056	139728	102352
Candles	113412	121727	139799	152068	139191
Cattle, head	440	1840	2631	12042	10285
Cotton, bales	5132	8810	12098	15445	10021
Coffee, sacks	38158	43654	67122	48634	42283
Cooperage, pcs	63084	64279	103855	172849	108105
Eggs, brls	7258	9160	8779	6424	5014
Flour, brls	390131	408211	312841	332778	199276
Feathers, sks	4095	7876	9510	9594	7319
Fruit, dried, bush	17480	6413	18851	32003	13029
Grease, brls	4426	4732	6110	15694	9413
Grass Seed	2830	7587	8313	14375	7330
Horses, head	599	944	1772	2078	1630
Hay, bales	638	554	3913	780	5706
Hemp	3112	3616	3086	6190	2918
Hides, lbs	48079	142823	28449	6815	44035
Hides, num	12459	31755	36342	36332	24427
Iron, pcs	108255	172409	222119	339886	604861
Do., bdls	44110	36386	55841	62373	63716
Do., tons	9776	11329	14.46	18322	11978
Lard, brls	30391	47862	42652	57084	43799
Do., kgs	71300	115845	98650	84346	62806
Lard Oil, brls	26110	24830	31590	47276	43595
Linseed Oil	7821	9377	6688	6409	3454
Molasses	25098	48866	65056	63381	45150
Oil Cake, tons	963	1601	3759	1830	778
Oats, sks	11707	2418	6597	3773	42282
Potatoes, brls	19823	23844	13075	7295	10399
Pork and Bacon, hhds	30220	43033	47150	49230	42469
Do. trcs	20762	24398	53153	51778	40515
Do. brls	122086	131560	135707	134939	104275
Do. bxs	2974	2372	6338	18806	22574
Do. bulk, lbs	1753953	3912912	2146987	1939548	873054
Rope, &c., pkgs	6272	9365	14857	10340	3909
Soap, bxs	21553	28033	37036	39645	34247
Sheep, head	460	45	1054	1014	1650
Sugar, hhds	13000	20360	31615	44119	32432
Salt, blrs	28585	27022	32870	37251	36333
Do. sks	7144	16314	29196	30466	9606
Seed, Flax, brls	443	3520	3543	2945	1121
Sundry mdse, pgs	349181	656791	1057475	1208530	811625
Do. Do. tons	10350	11241	6114	12444	8466
Do. Liquors, brls	19297	49348	53708	48015	25714
Do Manfrs, pcs	22103	66200	161639	381972	347563
Do. Produce, pkgs	13958	42333	48418	98736	141925
Starch, boxes	14107	18293	26445	31700	24520
Tallow, brls	5927	3039	4767	8162	6898

Exports from Cincinnati, &c.—Continued.

Articles.	1850 1851	'51 '52	'52 '53	'53 '54	'54 '55
Tobacco, kgs and bxs	18345	24761	31867	30741	26077
Do., hhds	2856	10821	6902	9353	4968
Do., bales	160	620	1341	3370	3307
Vinegar, brls	3756	5965	8254	6504	8643
Whisky, brls	231324	276124	2576[illegible]6	249612	24355[illegible]
Wool, bales	2725	3404	9432	6439	6435
Do., lbs	4836	2972	1586	14193	4482
White Lead, kegs	50857	65614	7566	743	55218
Castings, pcs	36266	33942	6747	159085	80263
Do., tons	1121	1629	309	2974	2073

Value of Principal Exports from the port of Cincinnati, for the years ending August 31, 1854 and 1855.

Articles.	Total Quantity.	Ave'ge Price.	Total Value.	Total Last Year.
Apples, green, brls	3,427	2 50	8,567	14,417
Alcohol	19,956	26 40	528,838	311,047
Beef	17,584	11 50	202,216	251,594
Do. tierces	13,977	17 00	237,609	122,336
Beans, brls	1,297	7 00	9,079	10,169
Brooms, doz.	18,275	2 25	41,119	32,342
Butter, brls	1,300	32 60	42,380	108,090
Do. firkins and kegs	24,196	11 00	266,156	415,950
Bran, &c., sks	11,456	80	9,164	10,071
Bagging, pcs.	2,485	2 80	6,958	16,799
Corn, sks	64,344	1 40	90,081	39,426
Corn Meal, brls.	2,772	2 90	8,038	1,057
Cheese, cks	4	20 00	80	454
Do. bxs	102,352	3 30	337,761	454,116
Candles	139,191	7 60	1,057,851	1,064,476
Cattle, head	10,285	70 00	719,950	502,100
Cotton, bales	10,021	44 00	440,924	664,135
Coffee, sks	42,283	18 50	782,235	778,144
Cooperage, pcs	108,105	1 20	129,726	172,849
Eggs, brls	5,014	8 00	40,112	48,157
Flour	199,276	8 15	1,624,099	2,096,501
Feathers, sks	7,319	26 00	190,294	230,356
Fruit, dried, bush	13,029	2 00	26,058	35,203
Grease, brls	9,413	17 00	160,021	251,104
Grass Seed	7,330	16 00	117,280	215,625
Horses, head	1,630	15500	252,650	259,750
Hay, bales	5,706	2 70	15,406	1,950
Hemp	2,918	35 00	102,130	117,650
Hides, lbs.	44,035	12	5,284	681
Hides, no	24,427	3 50	85,494	108,961

Value of Principal Exports, &c.—Continued.

Articles.	Total.	Ave'ge Price.	Total Value.	Total Last Year.
Iron, pcs	604,861	1 50	907,291	543,817
Do., bdls.	63,716	3 75	230,935	249,492
Do., tons.	11,978	75 00	898,350	1,466,560
Lard, brls.	43,799	20 00	875,980	1,084,616
Do., kegs	62,806	4 50	282,627	373,384
Lard Oil, brls	43,595	30 00	1,307,850	1,223,728
Linseed Oil	3,454	37 00	127,798	205,038
Molasses	45,150	12 00	541,800	507,048
Oil Cake, tons	778	25 00	19,450	25,620
Oats, sks	42,282	1 25	52,852	3,773
Potatoes, &c., brls.	10,399	3 25	33,797	9,119
Pork and Bacon, hhds	42,469	60 00	2,648,140	2,363,040
Do., tcs	40,515	20 00	810,300	931,984
Do., brls	104,275	14 50	1,511,987	1,619,500
Do., bxs.	22,574	21 00	472,851	367,314
Do., in bulk, lbs.	873,054	6	52,383	96,977
R'pe, tw'e, &c., pgs	3,909	7 00	27,363	72,380
Soap, bxs	34,247	3 30	113,015	128,844
Sheep, head	1,650	2 20	3,630	2,028
Sugar, hhds	32,432	62 00	2,010,784	1,985,355
Salt, brls	36,333	3 10	112,632	111,735
Do., sks.	9,606	1 40	13,448	39,605
Seed Flax, brls	1,121	4 50	5,044	13,452
Sundry mdz., pgs	811,625	6 00	4,869,750	7,201,180
Do. mdz., tons	8,466	60000	5,079,600	7,466,400
Do. Liquors	25,714	45 00	1,157,130	1,940,600
Do. manuf'rs, pcs	347,564	4 00	1,390,256	1,527,888
Do. produce, pkgs	141,925	3 50	496,737	325,576
Starch, bxs	24,520	3 60	88,272	103,025
Tallow, brls	6,893	35 00	241,255	236,698
Tobacco, kgs & bxs	26,077	23 00	599,771	676,302
Do. hhds.	4,968	90 00	447,120	785,652
Do. bales	3,307	8 50	28,109	23,590
Vinegar, brls.	8,643	2 50	21,607	16,260
Whisky	243,551	12 00	2,922,612	1,996,896
Wool, bales	6,435	34 00	218,790	225,365
Do. lbs	4,482	28	1,254	425,790
White Lead, kgs	55,218	2 20	121,479	148,562
Castings, pcs.	80,263	5 00	401,315	954,480
Do. tons	2,073	90 00	186,570	279,400
Total	.....	.....	$38,771,394	$45,432,780

DEPARTMENT OF PUBLIC IMPROVEMENT.

Visit to Dubuque, Iowa.

CELEBRATION OF THE COMPLETION OF THE ILLINOIS CENTRAL R. R. TO DUBUQUE, AND THE ILLUMINATION OF THE CITY WITH GAS.

On the Celebration Bluff, about one half of a mile from, and 250 feet above, the Ferry Landing in the City of Dubuque, some five thousand people were assembled, at noon, on the 18th day of July, 1855.

A city of 10,000 inhabitants, with its 8 hotels, 11 churches, and stylish dwellings in proportion, its various dry goods, grocery, hardware, banking, and other houses, some four stories high, of durable and elegant architecture, its flouring mills, saw mills, foundries, factories and other establishments, together with its 333 new buildings erected in 1854,* situated on a beautiful table-land about 200 feet beneath, presented a pleasing sight to the eyes of the admiring assembly.

An expanse of brilliant water, about one mile wide and ten miles long, embracing on its bosom a variety of luxuriant islands, extending along the eastern border of the city, and apparently surrounded by the bluffs of Wisconsin and Eagle's Point on the North, and by the Bluffs of Illinois and the promontory where Julien Dubuque's monument was built on the South, and looking like a romantic lake shut in by mountains, excited the wonder of the gazing multitude: it was an extraordinary view of the Mississippi.

The "Argyle House" of Dunleith, on the opposite bank of the river, stood in its solitary grandeur like a lordly castle: capable of accomodating at once 500 travellers.

Among the objects of interest presented to view from the Celebration ground, were the Gas House of Dubuque, at the foot of the bluff, and the car-train by the Depot at Dunleith. These simple objects indicated the cause of the great celebration, now transpiring—the completion of the Illinois Central Railroad to Dubuque, and the illumination of the city with gas.

The Railroad was completed during the first week of June, and soon afterwards invitations with free tickets on the Railroad were extended to various portions of the United States, offering the hos-

* See COMMERCE OF DUBUQUE, IOWA, in 1854, by *G. R. West*, published July, 1855, in the Western Journal & Civilian, vol. 14, p. 137.

pitalities of Dubuque to friends and strangers, the corporation representatives of various cities were invited; and from Buffalo, New York, to St. Louis, Missouri, delegations from the cities of the Northwest joined in the throng of happy thousands to celebrate the glorious events of speed and light by which the people of Dubuque would commence a new era of business and brilliancy.

Two of the St. Louis guests, the President of the Pacific Railroad and this writer, starting from home at 10 o'clock, A. M., on the 17th of July, and going by the Ohio and Mississippi and Illinois Central R. R.—400 miles—took breakfast on the morning of the 18th at the Julien House in Dubuque, where a band of a dozen St. Louisans were met, in honor of the day.

A few guests from Boston, Mass., 1225 miles by railroad from Dubuque, shared in the joy of the occasion.

Galena, 18 miles distant, was represented by several hundreds of its inhabitants, about three hundred of its "fair women and brave men," escorted by a band of martial music, having arrived in the morning train.

Chicago, Milwaukee, Mineral Point, Detroit, Cleveland and Buffalo and various other cities of the Northwest were also ably represented at the celebration.

Soon after 11 o'clock, a procession was formed in front of the Julien House; and after a grand parade of the civic and military train with music, through the heart of the city, the front of the immense procession, passing the gas works at the base of the bluff, began to ascend on their winding way along a ravine road, towards the high point of their destination, and the rear of the train were seen commencing the ascent, after the van had reached the height, and were gazing with love and awe at the sublime and beautiful scene of nature and art, of city, flood and field spread out before their wondering eyes.

On the brow of the bluff a delightful grove and a cistern of ice-water, prepared for the occasion, refreshed the weary way worn followers in the procession, and revived the almost lifeless body of one of the militia who sank down as by a sun stroke under the burning rays of the mid-day sun of mid summer, when he reached the summit of the bluff.

Numerous and far reaching tables, loaded with varied and substantial food, prepared with unusual elegance and richness, spread

out in the midst of the grove, pleased the eye and the sensible taste of the observer.

During the enjoyment of this table scene and landscape scenery, and the refreshment of ice-water, and the cooling breeze of the grove, the Hon. Lincoln Clark, of Dubuque, arising near the center of the richly laden and wide spread tables, welcomed the invited guests with a dignified and appropriate speech.

Dinner was then announced, and an immense multitude were arranged in admirable order around the shaded tables; a solemn silence reigned while the Rev. Mr. Woodward, of Galena, invoked a blessing on the feast:—the Hon. Geo. W. Jones, of Dubuque, U. S. Senator of Iowa, presiding on his right, accompanied by the Hon. Stephen A. Douglass, of Chicago, U. S. Senator of Illinois, —the company sat down to dinner, and realized all the satisfaction their imagination had anticipated.

Toward the close of the dinner, a regular series of toasts was commenced, and many of the toasts were responded to in profound and eloquent speeches, which received the close attention and frequent applause of the assembly.

Then followed a series of volunteer toasts, which, however happy they were, were excelled in happiness by the delighted audience, electrified by the applauding hands and voices, and lightening glances of the fair ladies of the Northwest.

The speeches may probably remain among the unwritten history and pleasant legends of the day, but the names of the speakers and the toasts on the occasion, being here presented, may refresh the memory of those who were present, and kindle the imagination of others who were not so fortunate:

REGULAR TOASTS.

1st. *The Illinois Central Railroad.*—The great work of the age. Its roots firmly planted in the fertile soil of Kentucky and Missouri, its trunk and branches nourished by the genial climate of Illinois, and the heavy dews of Iowa, Wisconsin and Minnesota descending on its head, how can it but flourish?

Responded to by Hon. Stephen A. Douglass, of Illinois.

2d. *The occasion we celebrate.*—The union of the south with the north; of the east with the west, of the Ohio with the Lakes, and of the Lakes with the Mississippi. May that union be fruitful, prosperous and perpetual.

Responded to by B. M. Samuels, Esq., of Dubuque.

3d. *The memory of Washington.*—The great and the good. May no American citizen ever insult that memory by forgetting

that we have a destiny to fulfill, a liberty to defend, and a nation to preserve for posterity.

Responded to by Capt. Gear, of Galena.

4th. *Railroad extension.*—Effectual sources of national wealth, the conservatism of the States, the pacific glory of the country.

Responded to by Geo. L. Nightingale, Esq., of Dubuque.

5th. *The Dubuque and Pacific Rail Road.*—Westward the star of empire takes its way. Not responded to.

6th. *Dubuque Gas.*—Not spent, but reduced to its most useful form. Our light will no longer be hid under a bushel. Not responded to.

7th. *The Territory of Minnesota.*—The purity of her waters, the salubrity of her climate, and the fertility of her soil, are a guarantee of her future greatness; may she soon enter the sisterhood of States. Not responded to.

8th. *The Citizens of Galena.*—

> Your friendship, sirs, we winna quat it,
> An' if ye mak' objections at it
> Then han' in nieve this day we'll knot it
> An witness tak',
> An' when wi usqueba we've wat it
> It winna brak'.

Not responded to.

9th. *The City of St. Louis.*—The good old stepmother of her daughter Dubuque. May the blooming maiden never forget the matron who rocked her cradle.

Responded to by Chas. H. Tillson, Esq., Alderman, of Saint Louis

10th. *The City of Chicago.*—A new and youthful acquaintance. May our social relations be multiplied and cemented by the bonds of commercial intercourse.

Responded to by Mayor Boon, of Chicago.

11th. *Northern Iowa.*—Her rolling prairies, her limpid brooks and rivers, and her healthful climate make her the western land of promise, and as her name indicates, "Come and see."

Responded to by H. A. Wiltse, Esq., of Dubuque.

12th. *The Ladies.*—First and last in the hearts of their country-men.

Responded to by Wm. J. Barney, Esq., of Dubuque.

13th. *Buffalo.* The most Eastern city, which on this occasion has honored us by the presence of her Mayor and Council. Dubuque will never forget this act of courtesy and kindness.

Responded to by Mayor Cook, of Buffalo.

14th. *Milwaukee.* A beautiful and prosperous city. We shall become better acquainted when bound together by iron ties. Not responded to.

15th. *The Educational Institutions of Dubuque.*—The education of the young is the hope of the country. Not responded to.

16th. *Cleveland.*—The city to which we are indebted for the formation of our Gas and Coke Company.

Responded to by the Mayor of Cleveland.

17th. *Mineral Point.*—Our sister mineral city. May her enterprise enable her to unite with us in bands of iron — as another link in the great North western Railroad chain. Not responded to.

18th. *The Press.*—That powerful engine which needs no rail road track; but which traverses the globe regardless of grades, of land grants, or of stocks.

Responded to by Mr. Bross, of the Chicago Democratic Press.

19th. *The City of Detroit.*—The home of the statesman and pure patriot, Lewis Cass.

Mr. W. H. Craig, of Detroit, responded to this toast.

VOLUNTEER TOASTS.

By Gen. Henry Dodge, of Wisconsin:

The States of the Northwest. — When their railroad and canal improvements shall have been completed, they will be the happy abodes of millions of freemen — their march will be onward, and they will be pillars in our great and glorious confederacy of States.

By H. Cobb, Esq., of Missouri:

Dubuque and St. Louis.—Congratulating each other that they are now united with one another by the Illinois Central and Ohio and Mississippi Railroads in 24 hours, they are determined to speed the time when they will be only 12 hours apart by the Mississippi Valley Railroad north, on the west side of the river, and when, by the extension of the Iron Mountain R. R. south, Dubuque will be only one day and a half from New Orleans.

By W. H. Craig, Esq., of Detroit:

Dubuque.—May her Railways contribute largely to her prosperity. May they carry her enemies from and her friends to her, and leave those who are indifferent to her prosperity at a half-way station. May her light so shine that the feet of her people may be guided in the way of prosperity and happiness.

Impromptu by T. H. Hay, Esq., of Cleveland, and one of the Gas Co.:

DUBUQUE TO-DAY.

Citizens and strangers, know ye—
Two great things have come to pass,
The "Central Railroad" is completed,
And Dubuque is lit with Gas!
Yes! the Railroad is completed,
And we shall be much to blame,
If we do not seize the occasion,
To go upon an "Express train."
Nor, if Evening close around us,
While that *train* is running loose,
Need it be at all surprising,
If we find some Gas in use.
Gas and steam go well together,
Mingling in one common mass,
For Experience will teach us,
"More we *steam* the more we *gas*."

By D. Decker, Esq., of Dubuque: The North and South, the East and West.—May bands of iron gird us in one zone.

Judge Corkey gave: The good health, long life, successful mission and safe return of Hon. A. C. Dodge.

J. H. Emerson: The Mississippi, the King of Rivers. The Pacific, the Queen of Oceans. What a happy Union when joined in wedlock by the Dubuque and Pacific Railroad.

Richard Bonson: The City of Dubuque and its surrounding country. —Rich in mineral, rich in soil. They keep the furnace smoking, the mills grinding, the cars running and the gas burning.

Sentiment by Henry Cobb, Esq., of the Western Journal and Civilian, of St. Louis: *The Mississippi Valley.*—From the Alleghany to the Rocky Mountains, from the British Possessions to the Gulf of Mexico — the land of promise, of material plenty and of political blessings—as the rivers which fertilize it flow together in unity to the ocean, so may the feelings of its people flow together in union to eternity.

Ample justice can not well be done to the leading, public spirits of Dubuque who devised this celebration, and conducted it so admirably to its triumphant conclusion; but the Hon. Geo. W. Jones and Messrs. Wm. H. Merritt, T. S. Wilson and F. S. Jesup, the Committee of Invitation, deserve especial praise for drawing the attention of a large quarter of the United States to their beautiful and substantial city.

Various other committees and private persons, whose names have not been disclosed from behind the curtain of their management, are also worthy of peculiarly honorable mention. One, at least, of those persons cannot escape notice. Amid the sparkling of champagne, his wit sparkled with a finer spirit. Genial as a May-morning he shone,

"From grave to gay, from lively to severe;"

and among the last flashes around the festive board, the brightest were those of Mr. Eugene Shine.

During the day, dark columns were seen standing like monuments on several of the highest exposed points of the bluffs bordering the western side of the city. Soon after dusk the sky was light again; the dark monuments were transformed into columns of fire: the bluffs seemed to be in a general conflagration: even the heavens were illuminated as though the god of day were returning from the West, to take another burning glance of love at the beautiful city of Dubuque, before he could go on his usual way to visit the celestial cities of China.

Crossing the river on the elegant steamer of the ferry, the admiring throng saw the bluffs of Dunleith glowing in rivalry with the bluffs of Dubuque. The rays of light from either side like an *Aurora Borealis* ascending the sky, and reaching the zenith, formed in mid-heaven a glorious *corona:* a crowning glory of the day: "mankind, the great and manifold organ of God," receiving the co-operation of their Maker in this sublime apotheosis.

"In itself, a thought"
"Is capable of years."

The ferry steamer—A. L. Gregoire—like her happy crew, seemed almost charmed by the fascinating spectacle, or it may be the kindred feelings of her master—Capt. Melville—to prolong the transport of the scene, had almost stopped her motion, or it may be, mankind live more in the grand moments of their life, than they are aware: surely, the impressions of that scene, from the graceful steamer, adorned with wreaths of evergreens, garlands of flowers, national banners and words of welcome on triumphal arches, in the middle of the broad Mississippi, where the balmy air of the mid-summer night was delicious as ether, and the brilliant waters mirrored the heavens, seemed the concentrations of an age, and those very impressions will be prolonged, no doubt, through ages yet to come.

Arriving at the eastern shore of the Mississippi, the large freight depot standing on the waters edge, and the immense Argyle House, 5 stories high and fronting 151 feet, a few squares from the landing, as also several other buildings in Dunleith, seemed filled with an internal fire by the brilliancy of the illumination of the windows.

In a room, 52 by 60 feet, in a wing of the Argyle House, several hundred gay people were gathered, attending a ball with which the festivities of the day were closed. The windows of this room on each side are many, wide and high, through which the evening air of the river came fanning the glowing faces of the joyous crowd with refreshing sweetness. Around and above the lamps shone brightly from the festooned walls,

"A thousand hearts beat happily; and when
Music arose with its voluptuous swell,
Soft eyes looked love to eyes which spoke again,
And all went merry as a marriage-bell."

Thus ended the Celebration; at which few ill-natured people did not join in the feelings of wide-spread satisfaction.

The night was too brilliantly illuminated by the lights in the windows of the houses and by the bon-fires on the Bluffs—the gas could not endure the rivalry, though after a few evenings were passed, the gas posts in the streets and the burners in the houses sent their cheering rays throughout the City of Dubuque.

So very pleasant was the time and place, so cordial was the hospitality displayed, that this visit was prolonged far in August. Many items were taken worthy of extended comment, of all of which mere mention now cannot well be made. The mills and foundries of the enterprising manufacturers, the works and buildings of the "1520 various mechanics," the mines and mining of the rich lead ores, the heavy crops of the fertile as beautiful bluffs, the elegance and complete assortment of the stores, the comfort of the Julien House and City Hotel, the courtesy of the editors towards the stranger, the generous patronage of the Drama, of which Miss Sallie St. Clair was the reigning star, the beauty of the women, the gallantry of the men, the religious devotion of the people with their 11 churches—these, with many other items, deserve elaborate notice, and will long remain among the pleasures of memory.

The brilliant cabinet of Capt. Levins, the showy vineyard of Mr. Farley, the island-improvements of Mr. Gregoire, the city and the rural mansions of various persons excite especial admiration, the last, by their own intrinsic architectural beauty, and by the grandeur of the view from their observatories.

The leading object of public interest in this solid and ornamental city, and the proper one with which to close this article, is the Dubuque and Pacific Railroad.

Starting from the river bank on the island in front of the city, and passing the bluffs through a valley by Julien Dubuque's grave in the southern part of the city, the route of the road runs directly west towards the South Pass of the Rocky Mountains.

About the 1st of August, 1855, a contract was made with Col. R. B. Mason and his friends to build the first division of this road, 30 miles, to Dyersville on the western boundary of Dubuque county. Total cost of first division estimated at $1,150,000. Stock subscriptions, then $600,000: individual $300,000, County bonds $200,000, City bonds $100,000. On the 18th of August, the city took an additional $100,000 in the road, by a vote of nearly 10 to 1; and it was confidently expected that private subscriptions

would soon swell the sum to near $1,000,000. At or near Dyersville, the Minnesota road through St. Paul to Lake Superior, and the Southern road through Keokuk and St. Louis to New Orleans are proposed, completing the Mississippi Valley Railroad, to join with the Dubuque and Pacific Railroad. By which means and by the Chicago route to the Atlantic, the wealth and travel from the North, the South, the East and the West will have easy access and egress to and from Dubuque.

Philadelphia, Fort Wayne and Platte River Airline Railroad.

This is the chartered title, under the laws of Iowa, of a company, who, with two other companies, chartered by the State of Illinois and of Indiana, are building an airline road from Fort Wayne, Ind., to Council Bluffs, on the Missouri river—distance 580 miles. Of this distance, 129 miles are in the State of Indiana, 178 miles in Illinois, and 273 miles in Iowa.

At the first public appearance of this project, under the charge of Col. Samuel R. Curtis, Chief Engineer, we noted the movements made in its favor in December, 1853.

We are now informed by Erastus Hurd, present Engineer, that divisions of this road in Indiana and Illinois, are progressing in construction, that on the 8th of September, 1855, the consolidated company made a contract with Mr. Levi Chase to build the eastern division of this road in Iowa, starting at the Mississippi river, opposite New Boston, and extending through Wapello, on the Iowa river, 42 miles, that it is intended to put the road under contract soon to Oskaloosa, 88 miles, that this road in Iowa passes through a very rich and thickly settled portion of this rapidly prospering State, and that the citizens are taking hold of the enterprise with a determined energy that must ensure the vigorous progress of the work.

The main terms of the contract with Mr. Chase are that the road shall be completed in running order within two years:—price $25,000 per mile.

Mr. Chase, as a railroad man, is following close in the race with Mr. Farnham and Col. Mason, both in fact and reputation; and if the people along this air-line route of Iowa are so rich and so bent on building this road as they are reputed to be, we may expect to hear soon of further bold movements and rapid progress on the work.

DEPARTMENT OF INDUSTRY.

Manufacture of Stoves in St. Louis.

No branch of industry has increased more rapidly in St. Louis within the last few years than the manufacture of stoves. It is but a short time since the St. Louis market, and the West generally, was supplied with this commodity from the Ohio river, now, the importations from that quarter have ceased almost entirely.

We have not ascertained the name of the individual who manufactured the first stoves in this city: there was probably several feeble attempts made in this line before the business gained a permanent footing. But among the present manufacturers Messrs. Bridge and Brother, proprietors of the EMPIRE STOVE WORKS, are the oldest and perhaps the first pioneers. We are informed that these gentlemen commenced manufacturing stoves upon a small scale as early as the year 1834 or 1835; they now melt 20 tons of iron per diem, and turn out about 32,500 stoves, equal to about 5,000 tons per annum. They state that their establishment occupies an area equal to a block 400 feet square, and employs about 150 hands. The engine is estimated at 60 horse power, and the arrangements of the establishment with all its appointments attest the excellent judgment and skill of the proprietors.

The EXCELSIOR STOVE WORKS, established and owned by Mr. Giles F. Filley, occupies a front of 320 feet on Lewis street, extending through the block 280 feet to Main street; on this there is over 25,000 feet of moulding floor. Mr. Filley commenced the manufacture of stoves in the fall of 1849. His establishment at beginning was capable of turning out about 40 stoves a day. In 1853 he increased its capacity to about 85 stoves per diem, and by an enlargement made in the early part of the present year it is now capable of turning out from 120 to 125 stoves per diem, or about 37,500 per annum. There is melted at this establishment from 23 to 24 tons of metal daily, equal to about 7,000 tons per annum, counting 300 working days in the year. More than 200 men are now employed in the business, and their wages amount to more than $2,500 per week; some of the hands earn as high as $30 per week. The establishment consumes about one ton of anthracite coal and from 200 to 250 bushels of coke daily. The engine is estimated at 70 horse power, and there are two cupolas capable of melting 30 tons of metal per diem. In respect to quan-

tity, we believe this is the most productive stove manufactory in the United States, and perhaps in the world. From September, 1849, to January 1855, there had been produced at this establishment 64,020 stoves.

The Stove and Plough Foundry, owned by D. M. Hitchcock & Co., melts about 1,200 tons of metal, and turns out about 10,000 stoves per annum. During the same period the establishment consumes about 6,000 bushels of Pittsburg coke, and 100 tons of Lehigh coal. At this establishment there is also manufactured about 5,000 ploughs per annum. The present number of operatives is set down at sixty-seven

There is one other stove foundry in St. Louis, which is operated by Mr. Hazlet on a small scale, which melts about 400 tons of metal, and turns out about 2,600 stoves per annum.

From the memoranda furnished by the proprietors, we estimate the annual amount of metal melted at all these establishments at 13,600 tons, and the number of stoves produced at 81,500 per annum. Number of hands employed about 425. Quantity of anthracite or Lehigh coal consumed 600 tons; quantity of coke consumed (produced from Pittsburg coal) 113,500 bushels.

The metal consumed is obtained from various quarters. Bridge & Brother state that they consume in a year 1,000 tons of Scotch pig, 1,000 tons from the Pilot Knob, and 3,000 tons from the Tennessee and the Ohio rivers. Mr. Filley obtains his iron mostly from the furnaces on the Cumberland and Ohio rivers, with which he uses one fourth to one third in quantity of Scotch pig, which greatly improves the castings. Mr. Hitchcock obtains his metal from the Ohio and Tennessee rivers.

All the establishments work entirely to fill orders, and we were informed by Mr. Filley, that he was unable to meet the demand promptly, and we presume this is the case with the others. We learn that the goods are mostly sold on a credit of 4 to 6 months.

The stoves produced in this city are distributed throughout the entire West from Minnesota to Louisiana, embracing the Mormon settlement at Salt Lake. Mr. Filley says, he has even sent some to Germany. Bridge & Brother state that they sell about 100 tons south of St. Louis, 500 tons up the Missouri river, 3,900 tons up the Mississippi river, and about 500 tons in St. Louis. We learn that the average value of stoves is about $85.00 per ton, which makes the produce of these establishments amount to about $1,000,000 per annum.

THE CRY OF THE SOUL.

FROM THE FRENCH OF LAMARTINE.

When the breathing divine,
That floats o'er the world,
Alights on my soul,
Which receives every air,
And arouses at once,
Emotions like a wave,
Where the swan flaps her wings,
Rippling circles around;—

When in the realm of love,
Where my sou is entranced,
I press to my heart,
A phantom I adore,
And when I seek in vain,
For the words of life,
To fire it with the flame,
By which I am consumed;—

Jehovah! Jehovah!
By thy name, I am soothed,
It is the sole echo,
That responds to my heart;
Or indeed this impulse,
This ineffable bliss,
Itself is an echo,
Of thy glorious name.

Thou sleepest not often,
In my breast, sublime name!
Thou sleepest not often,
On my lips, aye, of fire,
But every impression,
There awakes thee at once;
And the cry of my soul,
Is always: Thou, my God!

AN IVY-LEAF FROM VIRGIL'S TOMB.

Lines written on the presentation to a Lady of an Ivy-leaf from Virgil's Tomb, situated at the entrance of the Grotto of Posilipo, near Naples.

By I. W. TAYLOR, Esq.

Far off, beneath Italia's glowing sky,
Where Naples spreads her gorgeous Bay;—
Where morn and evening splendors charm the eye,
And silver beams illume the day:—

Where nature all her wealth of scene unfolds,
Of flood and field and smiling plain;—
Where ocean's boundless tide forever rolls,
And monarch mountains meet the main:—

There is a spot where nations go to mourn,
And mankind pour embalming tears;—
A spot where stands a poet's simple urn,—
Where pilgrims' feet have trod for years!

That spot and urn concealed by grove and vine,
Where trees and flowers perennial bloom;
To me, was holy ground and sacred shrine,—
There genius slept—'twas VIRGIL'S TOMB!

Like all the adoring throng, I went and knelt,
To pour libation at this shrine;—
I wished to feel what other hearts had felt,
And make the world's emotion mine!

'Twas there this leaf I plucked from off its stem,
With reverent hand and pilgrim trust;
Though shining less than many a floral gem,
It may have sprung from Maro's dust!

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ARTICLE I.

The Relations between Public Economy and Ethics.

"Honor thy father and thy mother; that thy days may be long upon the land which the Lord thy God giveth thee."

THOUGH a system of public economy may teach nothing which is in itself unjust or immoral, yet, if it does not embrace and inculcate the philosophy that lies at the foundation of individual and social happiness, it will, in time, subvert the objects which it was designed to promote. And the more efficient such a system in developing the natural resources of a people, the more surely and rapidly will be their moral deterioration. For, unless attended by a corresponding moral improvement, increase of wealth is calculated to foster and strengthen the passions,—thus giving to man's selfish nature a greater power over his social actions. In such a case the bonds which bind a people together as a nation lose their strength, local interests and sectional prejudices usurp the place of patriotism, and even the sympathies which spring from the natural relations between individuals, either cease to flow or become adulterated at their fountain.

Instead of regarding all knowledge as a unit, men have divided it into separate departments, and unhappily those who undertake to give instruction in one department, generally manifest but little interest in tracing its relations to the others. It is owing to this, at least in part, that so many are learned without being wise, and that, while the people of the present age are well instructed in the arts of acquiring wealth, they remain ignorant of the manner of using it so as to promote their happiness. The teachers of political economy seem to regard this branch of the subject as not em-

braced in their department of knowledge. They would teach communities how to acquire wealth, and leave to others the duty of preparing the human mind for its enjoyment; but we are persuaded that one who labors to develop the wealth of a country, without aiming at the same time to refine the nature and improve the morals of the people, is justly answerable for the neglect of a high social duty.

In our view, it is not a sufficient excuse for us that every community is supplied with individuals who devote their lives to teaching ethics; for we hold that that department of knowledge constitutes an essential element of public economy, and our system would be incomplete without it.

The subject selected for this paper has been suggested by a series of observations, which have led to the conclusion that a large portion of the evils of the present age may be justly attributed to a lack of regard for the Fourth Commandment: Thou shalt honor thy father and thy mother. This duty is so much in accordance with nature, so reasonable, and, withal, so agreeable to those who habitually observe it, that without reflection one might conclude that the fifth commandment was wholly unnecessary. But so liable is man to deviate from the path of duty, that neither instinct which leads the child to love and look to the parent for support and protection, nor a sense of gratitude for parental kindness, nor the divine law can restrain a very large portion of the human family from dishonoring their parents.

The good that flows from honoring our parents is so obvious that we shall offer but few remarks on this branch of the subject. Excepting the hope of a better state of existence, the honor bestowed by the child is the chief solace of the parent. It lightens the burdens and gladdens the heart of the aged, and affords the best evidence of a life well spent. It inspires the offspring with self-respect, and elevates him above the vices which are calculated to degrade his nature. And so long as he honors his parents in the true sense of the commandment, he is incapable of committing a vicious action; for every crime we commit is a dishonor to our parents, whether they be living or dead.

But the benefits to be derived from the observance of this commandment are not confined to the parent and child: they extend throughout the community. Those who honor their parents, can-

not be otherwise than good citizens, obedient to the laws and active in the discharge of their social duties.

The nature of the benefits which flow from obedience to this commandment is suggestive of the evils which spring from disobedience. A foolish son is a grief to his father, and bitterness to her that bare him.* What a painful view of human depravity and its consequences is here suggested! We can scarcely conceive of a condition more miserable than that of parents whose declining years are embittered with grief and disappointment occasioned by the follies and vices of their offspring. Nor can we imagine a wretch more degraded, or more to be despised, than one, who forgetful of his obligations to his parents, turns a deaf ear to their counsils, and contemning all they have done and suffered on his account, dishonors them by his vices, filling the heart of his father with grief and the soul of her that bare him with bitterness.

For the credit of humanity we could hope that such cases existed only in the imagination. But from observation we are persuaded that they are of frequent occurrence, and that there is in general a want of regard for the fifth commandment manifested throughout the land. We shall not look to the more immediate family relations for instances: we leave those whose lives are embittered either by their own conduct, or by that of others, to trace out for themselves the cause of their unhappiness.

It would be an unnatural conclusion, that one who disobeys his parents and dishonors them by pursuing a course of conduct calculated to vex and render them unhappy, can be a good citizen, or that he will discharge the duties of any other relation with fidelity: whatever may be his calling or station, his conduct will be governed by selfish motives, with little regard for the interests or happiness of others.

The want of respect for the wisdom and virtues of the great and good men of our own country may be traced to a disregard for this commandment. The youth who disobeys his parents is too self-willed and too confident in his own crude opinions to respect the wisdom of good men. His instincts lead him to oppose the established order of the institutions under which he lives; and the more excellent these institutions, the greater is their antagonism to his nature, and the greater his desire to modify them. In selecting individuals for office, he repudiates wise and good men who have

* Prov. c. VII, v. 25.

proved their attachment to the institutions of the country by long service, and votes for those who are nearer his own standard of intelligence and moral worth. He rejoices in the cognomen of "Young America," and in derision of the conservative wisdom of the country calls it "old fogyism." It is obvious that such a spirit is opposed to the advancement of civilization, and should it gain the ascendant, will subvert our institutions, defeat all the higher objects of society, and finally compel the human family to return to a state of barbarism.

We appeal to the experience and observation of the reader, and ask whether he cannot trace a very large part of the unhappiness which has come under his observation, to a want of obedience and respect for parents? But let it not be hence infered that the nature of man has changed, or that children are born with dispositions more perverse and intractable now than in former times.

The evils which we have in view arise in part from the unwise conduct of parents, and in part from the commercial and money-loving spirit of the age. Fathers whose minds are wholly absorbed in their pursuits, and mothers who look outside of the family circle for excitement and pleasure, cannot bestow sufficient attention upon their children. It may be the one great purpose of their lives, to provide for and promote the happiness of their offspring, but while laboring for this object, their toil, their artificial pleasures and the cold calculations involved in their pursuits, absorb their sympathies and dry up the fountains of parental tenderness. The child soon discovers that it has a rival in the heart of the parent: the fixed and abstract expression repels its caresses; and should its embraces be returned, they are felt to be cold and heartless; for its instincts are keen to detect dissimulation. Thus repulsed, it resents the neglect of its parents, and in seeking other objects of enjoyment, follows its natural propensities, and soon begins to act without their counsel. From this point, its divergence from the path of duty continually increases, and unless the parents—who committed the first error—reform their own lives, the child may be regarded as irreclaimable. And thus the parents having first broken this commandment, are made to suffer its penalties through the disobedience of their children, upon whom the consequences of their transgressions descend.

If there is any excuse or palliation for conduct so unwise and so unhappy in its consequences, it is to be looked for in the commer-

cial spirit of the age. The individual is a part of the community in which he may live, and he cannot effectually resist its influences. He may reject certain portions of its doctrines and practices, but there is a spirit diffused throughout the entire mass that enters with those things which he allows, and he is drawn into vices by the very means perhaps by which he had hoped to avoid them.

Morals and religion have lost much of their vitality, which has been absorbed by commerce. The commercial spirit has entered into the holy places and turned the hearts of both teacher and disciple from the adoration of the living God to the worship of mammon. The Gospel has become a commodity: and like other things has a commercial value. Those who dispense it, instead of enquiring where it will do the most good to others, carry it to the market where it will command the highest price in money. Those who sell and buy have again taken possession of the temple, and it is not to be expected that they will be found in the lead of a reformation that will expel themselves. To whom then shall we look to stay the progress of these evils? We fear that they have already proceeded too far to be arrested, until they shall have worked out their own cure. If, however, the disease be medicable, we are persuaded that the remedy is to be found in a reformation in our present system of political economy.

We hold that the American system of Banking, though an efficient agent in developing the resources of the country, is antagonistic to the moral improvement of the people. To say nothing of the temptation which banks of issue hold out to individuals of speculative dispositions, or of the injustice of giving to corporations the power of enlarging or diminishing the volume of the circulating medium, thereby depressing or elevating the standard of value, the state of indebtedness which they create, is, in our opinion, sufficient of itself to outweigh all the benefits derived from them. A state of indebtedness is a necessary and inevitable consequence of a paper circulation, and in no way can the indebtedness of the community be reduced below the amount of paper money in circulation. One of the consequences of the system is that, instead of living within their means, many people live up to the extent of their credit, and it is from this practice that the worst evils of the system are developed. One in this condition must sustain his credit in a commercial point of view, or lose his social position. If he possesses a reasonable share of self-respect, he will concen-

trate all the energies of his mind upon his business. He has no time for mental or moral improvement. As a member of the community in which he resides, he is compelled to attach himself to those who will be most likely to assist him in time of need. As a citizen of the State, he must adopt and uphold the policy which is best calculated to sustain his own peculiar condition, without reference to the public welfare. As a parent, he neglects the proper training of his children, and suffers from continual apprehension that some unlucky circumstance will reduce them to want. As a christian, he may habitually discharge his religious duties, but he has no time for meditation , no heart for prayer ; for thoughts relating to his business rise like a dark mist before his mental vision and shut him out from communion with God. One can scarcely conceive of a more unhappy condition than that which we have attempted to describe ; and besides all this, if the individual should fail in his pursuits, he is generally doomed to a life of poverty with a mind soured against all mankind, while the most eminent success adds nothing to his moral enjoyments. This picture may appear highly colored, but it is nevertheless a true representation of many individuals who may be found in our country, while the moral and social condition of almost every one throughout the land is in some degree affected by the influence of our banking system.

We are not writing a treatise on banking, but having adverted to the subject to illustrate the relations between public economy and ethics, and also to show how far the moral character of a people may be affected by legislation, which looks only to an increase of wealth regardless of moral consequences, we trust the suggestions we have made upon this subject will not be overlooked or forgotten by our readers.

The people of these States need a broader system of political economy for the guidance of their legislators ; one that will develop the wealth of the country, and at the same time preserve and improve its moral condition ; a system that shall look to the respectability and happiness of the offspring, while it aims to instruct the parent in the arts of acquiring wealth. And to this point more especially we invoke the attention of the reader. Could such a system prevail, then indeed would there be solid encouragement for all men to labor with diligence. The obedience of their children, which would be ensured by such a system, and a reasonable confidence in their future respectability and usefulness would be a

sufficient reward for a life of toil. But now, no human conduct appears more strange and irrational than that of an individual who devotes all his energies to the accumulation of wealth beyond his rational wants, with a knowledge of the fact, that in almost all cases the acquisition of exorbitant wealth by parents is injurious to their children.

Before concluding this paper, we will simply observe that the philosophy involved in the fifth commandment, is too broad and profound to be even touched upon in a brief and hastily written article for a public journal. It is one of the many great moral problems to be found in the sacred writings, which contains within itself sufficient instruction to make men wise and good. Its end is length of days to individuals and indefinite duration to the national existence of a people. These are to be regarded as the great objects of civilization, for their attainment implies a comfortable and virtuous state of society governed by wise and good institutions. Hence it is rational to conclude that any system of public economy or legislation which tends to alienate the mind and affections of parents from their children, and lead the latter into a course of disobedience, is wrong in principle, and should be abandoned in practice.

ARTICLE II.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 314, Vol. XIV, No. 5.

Third Convention of Kentucky, August, 1785; Fourth do., Aug., 1786; Fifth do., Aug., 1787; Sixth do., Sep., 1787; Seventh do., Nov., 1788; Letters of John Brown to Judges Muter and McDowell, enclosing the commercial propositions of the Spanish minister. Don Gardoqui, to the people of Ky.; Comment on these letters; Spanish seizure of western boats, and confiscation of western produce; Defence of Ky. statesmen under the old confederation.

The early and unanimous indication of the democratic or popular spirit, in one of the earliest public assemblies of Kentucky, affords a key to her political complexion. The fervid character of her people with difficulty and reluctance suffers them to suspect that, this spirit may be carried to extremes; like those which hurried the republics of history, to an early tomb in military despotism.

Not that the author controverts the application of the principle of equality to the popular suffrage ; he believes that no excellence of organization, no nice adjustments of parts, with all the skill of political architecture can protect a people from their own ignorance and vice. The most complex, as well as the simplest fabrics of government must receive their character from their tenants and occupants, and not from the inanimate materials of which they are composed. Forms and constitutions of government may be idolized, when the spirit, which ought to give them life and health, has departed from the people, for whose use and benefit they were adopted. It is not therefore of much import to the community that a few more or a few less should be admitted to the right of suffrage under a political constitution, but of infinite importance to the voters themselves. There must be an overruling mass of virtue and intelligence to constitute the true conservative power of society, otherwise no political arrangements can preserve it from falling into anarchy. While an exclusion of large classes independent of prudential disqualifications, as those of minority, residence and sex, keeps up a constant discontent and ill blood in the community, much more mischievous than the admission of all to a political voice in the management of public affairs, which they may still be called upon to defend with their blood and their lives.

This convention with a spirit of passiveness and dependence uncalled for by their delegated authority, declined acting promptly and efficiently ; but referred the question of separation to another convention, to meet in the ensuing August of 1786.

This *third* convention assembled on the 8th of the month, at its usual place of meeting; and came to a unanimous resolution "that it is the indispensable duty of the convention to make application to the General Assembly, at its ensuing session, for an act to separate this District from the present government forever, on terms honorable to both, and injurious to neither." This resolution with an eloquent preamble, was followed by an address to Virginia and the people of the District, in a style of dignity and ornament hitherto unprecedented in the rude and simple proceedings of Kentucky. They were certainly the production of Gen. Wilkinson, at the time in question a member of the convention from the county of Fayette.* The Legislature of Virginia received the petition of

* Marshall, I, 212.

Kentucky with the liberality which has generally marked that great and magnanimous State. It passed an act providing for the election in the ensuing August, 1787, by the free white male inhabitants of the District, of five representatives from each of the counties who should determine whether it be expedient for, and the will of the good people of the District, that it should be erected into an *independent* State on certain conditions.

It was moreover enacted that, if the convention should approve of separation, a day should be appointed posterior to the 1st of September, 1787, when the authority of Virginia should cease, provided, Congress should prior to 1st of June of the same year, assent to said separation, relieve Virginia from her federal obligations arising therefrom, and admit the said State into the federal Union.

The expedition of Gen. Clark formerly mentioned prevented the assemblage of this convention at the proper time. A memorial explaining these embarrassments, was forwarded to Virginia by John Marshall, the late pre-eminent Chief Justice of the United States, and praying an alteration in the terms of the separating act.

This memorial was granted according to its prayer, and an act in conformity was passed, which arrived at Danville in January, 1789, after a formal vote had been taken in favor of separation. Thus fell the fourth convention of Kentucky to give birth to a fifth. The new act of Virginia continued her assent to the separation; but required another convention to be elected in the ensuing August, and to signify its assent to the political divorce, by a majority of two thirds of its members; its operation was also postponed until the 1st of January, 1789. Thus then had the people of the District been tantalized from December, 1784, to January, 1789; tossed from one political assembly to another, and their most interesting feelings kept in the highest agitation. It is, indeed, a high and honorable proof of political order and obedience in Kentucky, that an impetuous people should, under circumstances of great irritation and disappointment, have preserved the peace of the State. This too at the western extremity of the territory of Virginia, its people harassed by a savage enemy, circumstances almost inviting to separation, by the repeated disappointment of the public expectations.

The fifth convention of Kentucky assembled at Danville, and unanimously decided for the separation of the District, upon the

terms and conditions prescribed by Virginia as previously mentioned. It also directed a convention to be elected with full power and authority to frame and establish a fundamental constitution for the proposed State.

In conformity with this direction, a convention assembled at Danville on the 29th of July, preparatory to the separation of the District from Virginia. While this sixth convention were sitting, information was received that Congress had determined to refer the question of admitting Kentucky into the Union to the new government about to be established for the whole Union. This was indeed a cruel blow to the hopes of an independent government which had so often been excited, repeatedly voted upon by Kentucky, and as often assented to by Virginia. It is no matter of wonder that "there was now observed the most deep felt vexation, a share of ill temper bordering on disaffection and strong symptoms of assuming *independent* government.

The navigation of the Mississippi and the trade to New Orleans, now just tasted for the first time, were strenuously pressed into the argument, in favor of completing the constitution, and organizing government without delay."* It was even proposed to submit the state of the District, and the course to be pursued, to each militia company. This proposition, which would indeed have amounted to the disorganization of the representative government, and have resolved it into an elementary and unmixed democracy, like the Grecian Ecclesiai, or the Roman Campus Martius, was most judiciously rejected.

This body after protracted debate, came to the following recommendation, that the people of the District should elect another assembly to meet in the following November, and continue in office until the 1st of January, 1790; "that they delegate to their said representatives full powers to take such measures for obtaining admission of the District as a separate and independent member of the United States of America; and the navigation of the Mississippi, as may appear most conducive to those purposes; and also to form a constitution of government for the District, and organize the same, when they shall judge it necessary; or to do and accomplish whatsoever on a consideration of the state of the District, may in their opinion promote its interests.†" From the breadth and

* Marshall, I, 289.
† Idem, 296.

plenipotentiary character of this commission, almost like that of a Roman dictator, the temper of the District may be inferred. Nor can there, in the whole history of the American governments, whether during the disturbances in the New Hampshire Grants, which gave rise to the State of Vermont, or during those in the South-west territory, which produced the short-lived *State of Frankland*, be found a carreer of such multiplied disappointments, and abortive assemblies, as in the labors of Kentucky to be admitted into the Union of the American States. All parties seem to have been well disposed; still, as if under the influence of some evil spell, consent was given to be almost as soon withdrawn; act was passed after act, and assembly met after assembly, only to give birth to a successor, as remote as ever from obtaining what had been the favorite wish of the people for years.

Nor ought the party desiring immediate organization to be branded with obloquy any farther than it may have been mixed with views of political divorce; by a majority of two thirds, its operation was moreover postponed until the 1st day of January, 1789.

On the 17th day of September, 1787, the sixth convention assembled at Danville, and unanimously decided for the separation of the District, upon the terms and conditions prescribed by the law of Virginia. An address was made to Congress for the admission of the new State into the Federal Union by the name of Kentucky;" and the last day of December, 1788, was fixed for the termination of the authority of Virginia and the commencement of the new republic. This convention requested "the Delegates from the District in the Legislature of Virginia to use their endeavor to have an inhabitant of the District appointed a delegate to Congress for the ensuing year."

It was under this recommendation, that Mr. John Brown was chosen the first and only member of the Old Congress, from Kentucky, under the Old Confederation.

Still the conduct of the party desiring an immediate organization of the government should not be condemned any farther then it may have been mixed with views of Spanish dependence; now so much better understood than at the time of those transactions, and until the appearance of M. Chas. Gayarré's admirable work on the "Spanish Domination in Louisiana."

For had a domestic government been organized, after the repeated and harmonious *co-operation* of the great contracting parties, and the repeated and unavoidable dissappointment of their intentions, it is not to be supposed that it would have been so technically misconstrued as to be deemed treasonable by Virginia or hostile to the Union. The magnanimity of that venerable State would have cured all formal and technical difficulties. Should any such unjust imputation have been put upon the independent attitude of Kentucky, it must have soon been removed by her fidelity and attachment to the confederacy of the States, immovably fast, as it is confidently believed to have been.

Vermont continued without the pale of the Union, during the whole Revolutionary war, until March, 1791; yet no indictment was brought against her for treason, and she was joyfully received at her own time into the confederacy.

At this distance of time, the protracted delays and repeated disappointment of the people of the District seem inexplicable. It is not known what better to compare this long succession of fruitless conventions with, than the card edifices of children, which are no sooner erected than at a breath they are demolished. The assertion may safely be made, that no community in these States would now be so tantalized, as were the people of the District of Kentucky. Some auxiliary resolutions directing the election of the 7th convention closed the labors of this addition to the ineffectual assemblies of Kentucky.

So excited had public feeling become in consequence of this provoking course of things, that *disunion* seems to have been at least proposed, as its "idea was formally combatted in the public prints of the time, while nothing more open or formal than the actions of the convention is recollected in its favor."

A letter from the Chief Justice of the District, on the 15th of October, 1788, may best represent the opinions of the more considerate. "Forming a constitution of government," he says, "and organizing the same before the consent of the Legislature of Virginia, for that purpose first obtained, will be directly contrary to the letter and spirit of the act of assembly,"* and involving the perpetrators in the guilt of high treason, that the new State could only be admitted by consent of Virginia, under the federal consti-

* Idem, 296.

tution. But the most pregnant part of this letter is, that he represents "the resolution of the late convention, if adopted by the people, "that is acted on by electing a convention, might fairly be construed to give authority to the next to *treat with Spain*, to obtain the navigation of the Mississippi, if they should think such a measure to their interest." He then recommends the people "to direct their delegates not to agree to the forming a constitution and form of government, and organizing the same, till the consent of Virginia for that purpose be first obtained — not to agree to make any application whatever to obtain the navigation of the Mississippi, other than to the Legislature of Virginia and the Congress of the United States."

Everything proceeding from GEORGE MUTER will be treated by the author with all the respect inspired by a lively recollection of his venerable, mild and worthy character. The concurrence of THOMAS MARSHALL, the compatriot and friend of Washington and fellow-soldier of Muter, adds still greater weight to this letter, which was indeed his measure.* Yet, notwithstanding this most respectable authority, some political feeling not at all dishonorable, or some exaggerated apprehension of consequences from the action of the convention about to assemble, seems to have prompted this public address, unless these gentlemen had a knowledge of foreign intrigues which have since been fully developed in regard to Wilkinson and Sebastian.

As has been before remarked, the separation of Kentucky from Virginia was an agreed case between the high contracting parties; the difficulty was one of form and accident only; in such a state of things, it would have been cruel mockery and iniquity in Virginia, to have so far misinterpreted a separation of Kentucky, organized without the full present consent of Virginia, but which had been the subject of repeated and mutual agreements, as to consider it treason. Treason in her own children who had for years respectfully applied for separation, and which had been as repeatedly granted—never refused!

The jealousy of the country could not, however, have been too keenly alive to any attempts to fasten dependence on Spain, or any other foreign power, upon the rising fortunes of Kentucky. Such dependence is never admitted into the creed of any enlightened

* Idem, 297.

patriot, until the last extremity of domestic misfortune extorts this dangerous alternative; and then to be sleeplessly watched.

Why the patriotic Marshall and Muter were so apprehensive of a foreign connexion, it now becomes a painful duty to develope; although it affords a most interesting passage in western history. That feelings may still be lacerated by the recital, the author laments; and which he will studiously avoid, consistently with the faithfulness of history, and the discharge of his own duty, in the words of Doctor Robertson, as a witness in a court of Justice. Motives shall not be impeached, but upon strong and conclusive testimony; guilt shall not be tortured into existence by misrepresentation or unfair construction.

On the 29th of February, 1788, JOHN BROWN, then a member of the Old Congress, presented to that body the address of the Kentucky convention praying for admission into the Union of the States; but it was not until the 3d of July that the petition was finally acted on, and then referred to the new government about to be organized, for its ultimate decision. The reasons for this course, so vexatious to the people of the District of Kentucky, are set forth with great gravity and cogency, in the preamble to the resolution. The principal and most weighty was that the admission of Kentucky "could have no effect to make the District a member of the Union, under the federal constitution, then ratified by ten States." The process of adopting the new constitution, and admitting the new member of the Union, would both have to be gone over again.

The author can not hesitate to concur in the opinion expressed by the first historian of Kentucky, that "considering the time and circumstances under which these proceedings took place in Congress, there is no hesitation in pronouncing them every way worthy the high character which that honorable body had acquired for wisdom and virtue."

Mr. Brown then wrote to the President of the July convention, giving an account of this additional failure of Kentucky expectations, notwithstanding his best exertions to gratify them. In this letter was enclosed a detached scrip of paper headed *confidential** in these words: "In a conversation which I had with Don Gardoqui, the Spanish minister,† relative to the navigation of the Mis-

* Judge McDowell's Deposition in Innes vs. Marshall.

† Mr. Brown informed the author that the Spanish minister used in joke to call him *neighbor*.

sissippi, he stated that if the people of Kentucky would erect themselves into an independent state, and appoint a proper person to negotiate with him, he had authority for that purpose, and would enter into an arrangement with them for the exportation of their produce to New Orleans, on terms of mutual advantage." In addition to this ominous enclosure to Judge McDowell, a letter was written by the same gentleman to Judge Muter, then Chief Justice of the District, dated New York, July 10th, 1788, from which the following extracts are taken referring the reader to the appendix for the entire letter. After mentioning the delay of Congress in acting on the application of Kentucky, owing to the absence of the members during a great part of the winter and spring," and when finally committed "to a grand committee, they could not be prevailed upon to report—*a majority of them being opposed* to the measure. The Eastern States would not, nor do I think they ever will, assent to the admission of the District into the Union as an independent State, unless Vermont, or the province of Maine, is brought forward at the same time. The change which has taken place in the general government, is made the ostensible objection to the measure; but the jealousy of the growing importance of the western country, and an unwillingness to add a vote to the southern interest, are the real causes of opposition; and I am inclined to believe that they will exist, to a certain degree, even under the new government, to which the application is referred by Congress. The question which the District will now have to determine upon, will be, whether or not it be more expedient to *continue the connexion with the State of Virginia, or to declare their independence*, and proceed to frame a constitution of government? 'Tis generally expected that the latter will be the determination, as you have proceeded to think of relinquishing the measure, and the interest of the District will render it altogether inexpedient to continue in your present situation, until an application for admission into the Union can be made in a constitutional mode to the new government. This step will, in my opinion, tend to preserve unanimity, and will enable you to adopt with effect such measures as may be necessary to promote the interest of the District. *In private conferences which I have had with Mr. Gardoqui, the Spanish minister at this place, I have been assured by him in the most explicit manner, that if Kentucky will declare her independence, and empower some proper person to negotiate*

with him, that he had authority and will engage to open the navigation of the Mississippi for the exportation of their produce, on terms of mutual advantage. But that this privilege never can be extended to them while part of the United States, by reason of commercial treaties existing between that court and other powers of Europe. As there is no reason to doubt the sincerity of this declaration, I have thought proper to communicate it to a few confidential friends in the District, *with his permission*, not doubting but that they will make a prudent use of the information—which is in part confirmed by despatches yesterday received by Congress from Mr. Carmichael, our minister at that court, the contents of which I am not at libery to disclose."*

Upon this letter, as well as that to Judge McDowell on the same subject, comment is unavoidable; it is an essential duty of the historian of the times; it is an important part of western history; and it has been the subject of most angry and exasperated controversy. This commentary is undertaken, when the passions which embittered these disputes have died away; when the author, who was a witness, alas! almost the only surviving one, of their fiercest storms, undertakes these remarks, governed as he claims to be, by a sense of historical duty. He feels, at this time, nearly half a century from the raging of this political storm, as he did when in the midst of it, uninfluenced by its rage. On any other occasion than this, which arrayed the people of Kentucky in most acrimonious parties, such a declaration might be uncalled for.

The first idea that strikes the mind in considering this letter to Judge Muter, in connexion with the enclosure to Judge McDowell, is that Mr. Brown, and in all probability many others of the ancient statesmen of Kentucky, did incline to discuss, if not adopt, a connexion with Spain *independent* of the feeble and disgraceful union which then existed; one more in name than fact, disobeyed at home, and despised abroad. Under these circumstances the author thinks that such a measure so far from furnishing matter of reprobation and reproach, was consistent with patriotism to Kentucky, and may have even been demanded by its most sacred duties. The denial of any meaning in the letters to the judges, beyond being "forwarded for information," as supposed by Judge McDowell in his certificate of the 7th of August, 1806,† strikes the author as un-

* Marshall 1, 304.
† Political Transactions, p. 39.

worthy of the grave subject of the communication and the dignity of the correspondents. The information ought to have had an object beyond its mere communication.

But what is more important, it is inconsistent with the only manly and triumphant justification of which the enclosure is susceptible. To try the conduct of Kentucky statesmen in 1788, always excepting the corrupt conduct of Wilkinson and Sebastian, under a confederation in ruins and factions, by the same principles which should now govern the mind, under an efficient and beneficent government, would at once be both unjust and absurd. The peculiar circumstances of the times must be adverted to, in order to arrive at any just estimate of the measure, or of its friends. What then were these circumstances? They are eloquently and no less truly narrated by Gen. Wilkinson: "Open to savage depredations; exposed to the jealousies of the Spanish government; unprotected by that of the old confederation, and denied the navigation of the Mississippi, the only practicable channel by which the productions of their labor could find a market."* In addition to this, as has been already mentioned, all western property found on the Mississippi was seized by the first Spanish officer that chose to execute his orders, between New Madrid and New Orleans. Was this a condition of things for any community, much more for one of high spirited freemen with arms in their hands, just fresh from hunting down the British lion and his Indian allies, to bear any longer than it was unavoidable? When these grievances are fairly estimated, which must have blasted the industry and the dearest hopes of the country; have driven the immigrants back over the mountains they had scaled with peril and privation; condemned the fertile lands of the West to waste their richness in uncultivated forests; to become again an Indian wilderness rather than continue a civilized country; and add to these heart burnings on the subject of yielding the navigation of the Mississippi for twenty or thirty years to the arrogant and haughty demands of Spain; the reader may then have some idea of the feelings of the western people on these matters. From these considerations, some faint notion may be conceived of the necessity, which the statesmen of Kentucky must have felt, to look to some other protection for the vital interests of the country, than the tottering and imbecile confederacy, which then deluded

* Wilkinson's Memoirs, II, 119.

the country under the pretence of a government; a confederacy, which threatened to jeopard all the fruits of the late glorious revolution by anarchy and disunion, if not by foreign conquest. Can circumstances be imagined more imperative on Kentucky statesmen and patriots to turn their attention to a foreign connexion for that protection for the fruits of their enterprise and industry, which their own government could not give, and without which all government is a mockery and a perversion of its rational purposes? To the mind of the writer the circumstances of the case may have had this justification in the view of the parties.

To be continued.

ARTICLE III.

Missouri State Agricultural Fair.—Judge BATES' Address.

One of the most gratifying social phenomena of the times is the growing interest manifested throughout the Western States in agricultural exhibitions. It affords evidence, not only of a spirit of improvement in agriculture, the most pleasing and profitable of all human pursuits, but, that wearied with unprofitable discussions touching public matters which have been forced upon the people by designing politicians, they possess the good sense and good taste to look to a more rational and agreeable source of entertainment.

This is the third annual Fair of the Missouri State Agricultural and Mechanical Society, and we are much pleased to learn that it is regarded as a great improvement upon the exhibition of last year. A correspondent of the "Missouri Republican" says:

"To-day was the third of the Missouri Agricultural and Mechanical Society's third Exhibition. The number in attendance was larger than that of any previous day of the Fair, there being near four thousand persons on the grounds. Yesterday's attendance was estimated at between three and four thousand. A large number of ladies graced the circle of seats to-day, and added much to the interest of the occasion."

This is as it should be. Excepting the place of Divine worship, there is, in our opinion, no public occasion which is in every respect so proper for the attendance of Ladies, as agricultural exhi-

bitions. There is a peculiar appropriateness in the meeting together of those whose daily cares and sympathies are exercised in the same cause, especially when that is the cause of civilization and of all the comforts which the term implies.

The annual address delivered by Hon. EDWARD BATES needs no commendation from us; it will be read with pleasure, and we trust with profit also, throughout the country.

ADDRESS.

Mr. President and Gentlemen of the Society:

It is a pleasant sight to behold this vast assembly, and a delightful employment of the mind to contemplate the motives which have brought us here. The magnitude of the congregation is proof enough of the deep interest which the country takes in our cause, and the motives which prompt to the act, we may safely assume, are pure and patriotic, alike devout to the Creator, and beneficent to our fellow creatures.

We are not assembled here to exchange conjectures about the probable effect upon nations and dynasties of the awful struggle which is now reddening the waters of the Baltic and the Euxine with needless bloodshed, and dressing half a continent in mourning. We are not met to speculate upon the likelihood of revolutions in Western Europe, to be brought about by the new ideas of law and government which are constantly climbing from the lower strata of society to the high places of power, evoking as they rise the magic spirit of popular opinion, so potent to change, to renovate or to destroy the world's old habits of thought and of will. We are not here to devise schemes for the advancement of partizan interests, or the nursing of sectional prejudices, nor to stir up strife among brethren upon artificial questions of government; nor to waste our energies in unprofitable efforts to advance this favorite man, or thwart that opposing faction. No, sir; no. We are here for wiser and better ends—for the attainment of objects far more likely to do good to ourselves and to others.

The only objects of this Society are production and enjoyment, and all the means to be employed are innocent and peaceful. Every effort then to attain such ends by such means is an accomplished good: for if it fail in everything else, it cannot fail to cultivate and expand the best faculties of the mind and the purest affections of the heart.

In all the conflicting labors of life, men struggle against each other, each counteracting the efforts of his adversary. Success is victory, and failure is defeat, and the victor rises by the downfall of the vanquished. No real good is accomplished by such a strife. The vanquished lose whatever the victor wins, and the victor himself often retires from the contest exhausted and impoverishid. His

shout of triumph is sounded with a feeble voice, and while he proudly wears upon his haggard brow a wreath of bloody laurel, he hobbles on crutches through the painful remnant of his life, with

> "An empty name, and a paltry fame,
> And thousands lying dead,
> While every glorious victory
> Must raise the price of bread."

Not so with the cultivator of the earth. His are no conflicting labors. He has no adversary. He is no man's enemy—no man's rival—no man's dependent. His success is unalloyed good, a comfort and honor to himself, a blessing to his neighbors, and a valuable service to his country. His is the most independent of all occupations, for he is not obliged to ask favors of any but the bountiful Creator. Sunshine, and rain, and dew, and the delightful succession of the seasons are all that he needs for the attainment of his wordly ends, and these, he knows, are rarely, if ever, denied to those who ask them with pure hearts and diligent hands.

When I was invited to address you on this occasion, I was inclined to think that a mistake had been committed. It did seem to me, that, considering the recent origin of the society, and the mixed character of our people, coming from every section of the country, and accustomed to a great variety of soils, climates and modes of culture, it had been better to select a man of practical experience, and personal knowledge in farming—some man who could teach the young and advise his less experienced equals in all the multifarious economy of rural life. I am no practical farmer, and however much I may love and honor the "mother of all arts," I am all unfit to teach her votaries, who labor daily in her fields, how to do their work. My love may be found without discretion, and my zeal without knowledge. Others who have gone before me in this pleasant duty, and were far better supplied than I am with the means of knowledge and the faculty to communicate it, have rendered valuable service to the Society, by wise suggestions and clear explanations, concerning the great variety of soils and climates of our country and their natural adaptation to the different productions, both vegetable and animal; the various modes and implements of cultivation, and the judicious employment of chemical knowledge in the application of manures. These, and such like topics, I shall avoid, or touch upon very sparingly, for two very good reasons: First, my own deficiency in the knowledge necessary to enable me treat them so as advance the pleasure and profit of my hearers; and secondly, because I desire to draw your attention chiefly to some other matters, directly connected with agriculture, but sometimes overlooked by the individual farmer who is too prone to consider himself rather as an isolated and independent existence, than as a member of a great social compact, acting a worthy part in a common effort, and all the while sustained by and sustaining every one of his fellow members—matters which while they most

nearly concern the interest and comfort of every individual, constitute the body and fabric of our social economy, and must needs give character, as wise or unwise, to the policies of our Government, both State and Federal.

If agriculture consisted only in the cultivation of the earth for the mere purpose of supplying the cultivator with food, clothing and shelter, this broad and fertile valley would, doubtless, be the abode of a few thousand clownish inhabitants, who might eat and sleep and propagate their species, in abundant ignorance, and surrounded by a sluttish plenty of the vulgar necessaries of life. If these were indeed the only objects of agriculture, and such its low, restricted character, there would be small reason to complain of the injustice of mankind, through all past ages, in assigning to the tillers of the soil a degraded and servile condition. But such are not its objects and character. Its apparent degradation is a forced condition, unnatural to the intrinsic dignity and usefulness of the occupation, imposed originally by violence, and maintained, for ages, by the false policy of oppressive governments. We need not go back to the early ages of the world, to Assyria, Egypt, Greece and Rome, to find out why predial labor was degraded—why it was scornfully asked, "How can he be wise who handleth the plow, whose talk is of oxen, who delighteth in the goad?" We need go back only to the middle ages of Europe, whose history is the beginning of our own. There and then, the Feudal System universally prevailed; and that system was a stern military aristocracy. All the land belonged to the feudal chiefs, and all its inhabitants were their tenants and vassals. War was the only source of honor and power; and all that a chieftain needed was soldiers to fight his battles, and be honored with his companionship in arms, and laborious drudges to work his lands, and thus procure the means of riotous living in the intervals of peace. Then, no man cultivated his own land. Nobles, Knights, and gentlemen were not farmers. Their lands were tilled by such of their vassals as would have thought it a promotion to be allowed to serve in the humblest rank of their martial following. And this was the condition of agriculture, for ages, in Europe. The agriculturists formed a weak, poor and subdued class. Hereditary oppression and contempt, on the one side, and timid submission on the other, could not fail to produce the natural effect—a feeling of conscious degradation, and an unresisting descent into ignorance and vice. For the spirit of man will bow with the body that habitually crouches.

When literature began to revive in Europe, and knowledge began to rise and assert its power, trade and the mechanic arts were the first to receive the benign impulse. These [trade and the arts] are essentially gregarious. They draw men together into markets, work-shops and towns. Here, while for mutual profit they plied their trades and exchanged the productions of their labor, they ex-

changed also thoughts and opinions. And in this process they could not fail to discover that they had a common interest and a common enemy. Their common interest required order, peace and security, and their common enemy was the Military Oligarchy, which then oppressed and degraded all Europe. Their occupations, so social in their nature, gave them, at once, the will and the power to combine for self-protection against the petty tyrannies that surrounded them. And hence arose towns and boroughs, which, freed from many of the cruel exactions of the feudal law, became marts of commerce, workshops of skillful industry, and schools of modern civilization. Here the people enjoyed much of practical freedom, and exercised, to a great extent, the glorious privilege of self-government. But they could not, at once, reform the hereditary abuses of government—they could not renovate nations in a day. They stood alone, isolated by dangerous foes. They were but green spots in the waste of despotism, few and far between. The fire of freedom still burned upon their altars, but it burned, through ages, for themselves alone. Its feeble light could not penetrate the artificial darkness of the rural districts, where the peasant, the boor, the serf, the villein, toiled in hopeless ignorance for his feudal lord and his exacting hierarchy.

If I were writing a book, instead of making a brief discourse, I might attempt to trace, historically, the rise and progress of agriculture and its progeny of arts. But we have neither time nor occasion now, for such a disquisition. Our present objects are practical: They concern our personal interest, our homes, our neighbors and our country. It is fair to presume that every man who takes a deep interest in the objects of our meeting, has taken the trouble to make himself acquainted with the leading facts which characterize our agriculture, and distinguish it, in a very marked manner, from the agriculture of Europe. How things were formerly there, we have briefly seen. Here they are wholly different. We have never had over us ferocious nobles or rapacious priests, to calculate how little and how mean would support the life of the cultivator, and take to themselves all the rest. Our lands have never been in the hands of the few, to be cultivated by the many, for the sole purpose of raising rents and tythes, but in the hands of a government of our own choosing, which can have no opposing interest. Our laws are free; our men are equal; our land is plenty; our soil and climate are almost infinitely various: and every man, who has the industry to till a field, has the ability to own it. With us, agriculture is not a separate existence, a peculiar interest; it is the nursing mother of all other arts, the controling element of our manufactures and of our commerce—domestic and foreign. It pervades and influences all the relations of society, and is interlaced and combined with all the pursuits and interests of the people. And in this comprehensive character it is considered by the State government; for the charter, under which we have assembled,

while it incorporates, by name, an *Agricultural Society*, provides expressly for the encouragement of Agricultural, Mechanical and Domestic Manufactures and Productions.

Such, then, is the comprehensive character, the pervading influence and the inappreciable usefulness of agriculture. The practical pursuit of its object is a high calling. When well followed, it never fails to enrich the individual, to advance all other honest callings, and to give power and dignity to the Commonwealth, by developing its resources and drawing forth its hidden treasures into active utility. And thus, the intelligent farmer, in profitably serving himself, must needs serve his country. But this is not all. Its moral and intellectual advantages are hardly less than its physical. The labors of the husbandman are all innocent and harmless. Peace, order and protecting law are necessary to his success, and the daily habits of his life lead on to truth, justice and benevolence. All the influences of his profession lean to virtue's side, with a constant tendency to make him love his country and its laws, and to honor his God.

Having indulged in these general remarks, I desire now to draw your attention to some of the more practical parts of the subject. The great object of agriculture is production — the increase and multiplication of vegetable and animal life, whereby the farmer supports his family, the merchant and manufacturer are furnished with profitable employment, and the State is made rich and prosperous. How to accomplish this great object, and to make the most of the means at our disposal, is a problem, not for farmers only, but well worthy of the intensest thought of every sensible man, and especially of our statesmen, whose opinions exert a mighty influence for good or evil upon the interests of us all.

Three things are necessary to the perfect success of agriculture —land, labor, and learning. The two first are indispensable, for, without land and labor there can be no cultivation; and the third, learning, is no less necessary to the full development of the nobler art, and to enable it to fulfill its gracious mission, by doing the greatest sum of good to the greatest number of our race. Let us consider for a while the separate parts of this earthly trinity—and first:

The Land. Fortunately in this new country, it is easy to obtain good land at cheap rates. Every industrious farmer may, if he will, bestow the labor of his head and hands upon his own soil. He need not descend to the lower position of another man's tenant, nor submit to the draining process of contributing a large portion of his annual labor to swell another man's purse. And this I consider one of the immense advantages which a new country has over an old. It is of vast importance, not to the individual only, but also to the public, that farming lands should, as far as possible, be cultivated and governed by those who own them. It increases the respectability of the farmer, and gives dignity to his

occupation; it adds a strong motive to increased diligence and skill, whereby the annual crops are enlarged: greater care is used in the cultivation and preservation of the estate; damage by decay or accident will be repaired; orchards will be planted, and durable improvements made. In all these the temporary tenant feels no interest, and has no motives, material or moral, but to make the most of his transient bargain. But the man who cultivates his own land is animated by every good motive that belongs to the interests and passions of our nature. He prizes it because it is his own, for the present and the future; he digs a well and expects to drink the water; he plants a tree and expects to eat the fruit. Every improvement in beauty and every increase in value is for the benefit of those whom, most on earth he loves. There he has laid his hearth stone and erected his roof—it may be a rough unhammered stone and a clapboard roof, but they afford warmth and shelter to his wife and children. To him it has become a sacred place, for it contains all the endearing ties and hallowed associations of home; ties and associations which, while they soften and purify the feeling heart, can hardly fail to sharpen the thinking mind, and strengthen the laboring hand. By these means he becomes a more valuable member of society, a better husband and father, a better farmer, and who can say that he is not made a better patriot, for the love of home is the beginning of patriotism.

Here, in the middle of the continent, with a sparse population, surrounded by unmeasured regions of rich soil, it is easy now for any industrious man to get as much land as he can cultivate. But it will not always be so. It is not so now in any part of Europe, and in some parts of the United States, and cannot be so in any densely populated country, whether old or new. A rapid change is going on before our eyes, in the condition of the public lands and the relation they bear to agriculture. Besides our natural increase, and the influx of population from abroad, there are artificial causes in operation, many and powerful, tending to give a nominal value to our lands, and holding out strong temptations to men of capital to engross them into their own hands, not for use, but as an investment for future profit. The admirable facilities for steam navigation on our great rivers, and the long lines of railroad, present and prospective, through all the rich regions of our interior country, have brought the most secluded sections into open view, and made the public domain, that rich inheritance of our national family, to a great extent, a common subject of trade and speculation. And this tendency has been greatly enhanced by the action of the General Government, in transferring large amounts of land to those who have no ability or wish to use them, except as an article of trade. Of this character are the military bounties, railroad grants, and the like. This is an evil which I suppose can not be wholly avoided, because it is closely associated with the great and manifold advantages which we enjoy; and, while with grateful

hearts, we receive the good, we must learn how to bear, with patient spirits its concomitant evils.

And yet, I venture the opinion, that by a wise moderation on the part of the people, and a sound policy on the part of the Government, much of the evil might have been avoided in the past, and much of it may be corrected in the future. An opinion seems to prevail quite extensively, to the effect that the holding and control of the public lands by the General Government is, in itself, an evil, and that almost any expedient is wise which tends to place the control in other hands, whether the States, corporations or individuals. I cannot but think that this is a very grave error. The principal reason assigned in its support is, that the public lands afford a constant subject of contention and strife among the members of Congress. Perhaps that is true. Perhaps some members do dishonestly strive to convert the people's inheritance into spoils of victory, and to degrade the system of its management into a scheme of electioneering. But that is their fault, not the fault of the subject matter about which they quarrel. A wise and thrifty farmer, who has more land than he can cultivate, commonly husbands it carefully until his children are ready to settle it, and then establishes them around him, to their great advantage and to his own comfort and honor. And why would not the same policy be wise in a prudent and paternal Government, which holds the lands only for the use of the governed? If it were the settled policy to preserve the public domain until some one wanted it, for actual use, and then grant it on cheap and easy terms, to all who would use and improve it, any man, at least for some generations to come, might rise to the dignity of a landholder, on the single condition that he will manure the soil with his sweat or fructify it with his capital.

The Labor.—Perhaps there is no branch of political economy so hard to be well understood, and about which intelligent men so widely differ in opinion, as labor and its wise and just application to the affairs of life. It is not my purpose to treat of it in that difficult and disputed view, but only to throw out a few suggestions as to the character and amount of labor necessary to the success of of our agriculture, and the possibility of making the amount of labor we have go much farther and accomplish much more than we have been accustomed to see done.

Most of the mechanical arts have been methodised and disciplined. They have been subjected to settled rules, and their operations and results calculated so that it may be ascertained beforehand, with reasonable certainty, how much may be accomplished in a given time, by a given amount of labor. Not so with agriculture. The farmer—as far, at least, as concerns the raising of crops—is only a co-worker with Nature. He may plow and plant with all diligence, yet he cannot ensure the increase; for that, after all, he must depend upon the spontaneous energies of nature

and the blessing of a beneficent Providence. Yet he must work or suffer; for the wise proverb tells us that "the sluggard will not plow by reason of the cold, and therefore he shall beg in harvest and have nothing!"

Labor is so absolutely necessary to production, and consequent enjoyment, that it has become an axiom in social economy that nothing is intrinsically valuable but labor. If this be true, or if it approximates the truth, it becomes a high point of practical wisdom, to know how to apply labor to the best advantage, and I fear that many of our industrious farmers pay too little attention to this great consideration, and suffer accordingly. It is a waste of labor, and therefore a dead loss to the farmer, to attempt to do more than can be well done; and it is an abuse of labor to do that in thoughtless haste which needs to be done carefully, and with judgment and skill. In a new country like ours, the young farmer has a double task to perform. He has to make his farm before he can make a living by tilling it. And hence the importance in selecting his locality, or giving good heed to the character and condition of the land, and its adaptation to the ability of the individual, and the branch of farming he intends to follow.

The cost of making farms is, of course, felt, and in a general way, appreciated by those who make them; but I am inclined to think that many of the best farmers in the State would astonish themselves if they would take the trouble to make an exact estimate of the expense, and put it down in writing. Allow me to draw your attention to a few of the chief items.

1. *The clearing of timbered land.* If the forest be heavy, the work cannot be well done, ready for the plow, for less than $12 or $15 per acre. And then, if the timber be of a durable nature, such as oak or walnut, you will be plagued with about five per cent. of stump for many years, always in the way, crooking your rows, baulking your teams, breaking your plows, and fretting your temper. All this expense and trouble belong to the timber, and not to the land, and is just so much in addition to the cost of making a prairie farm, for the prairie sod can be broken and put into tilth easier and cheaper than the forest thus cleared. I leave it to men of more practical knowledge than I have, to say whether or no a forest farm, once fully made, is really worth so much more than a prairie farm, as to justify this apparent waste of labor, to say nothing of the waste of timber, which is an important consideration in a large portion of our State.

2. *Fencing.* I read lately in a newspaper a well written article, in which it is asserted that the fences of the United States cost more money than all the houses, including public edifices of every sort. At first I was startled and wholly incredulous, but the statement set me to calculating, and now, in the absence of precise data, while I cannot affirm the truth of the assertion, I dare not deny it. A Federal township contains 23,040 acres of land, which being a

square of six miles, may be enclosed as one field by a fence twenty-four miles long. If you wish to enclose the same quantity of land in separate, fields of a section, or 640 acres each, you must make 144 miles of fence—if in half sections, or 320 acres each, 216 miles of fence—if in half quarter sections, or 80 acres each, 432 miles of fence; and if in quarter-quarter sections, or 40 acres each, 576 miles of fence. Probably a majority of the cultivators of Missouri soil have each enclosed 160 acres or less. Let us assume a quarter section as the average quantity, and I think it fair to assume also, that the interior fences, including yards, gardens, farm fences, &c., will amount to half as much as the outside enclosure, and then you will have for every 23,040 acres [the contents of a township] the enormous quantity of 420 miles of fence. In estimating the cost of the fence, I do not claim to be precisely accurate.

Every good farmer will have good fences, if he can, for he knows that if his fences be mean and insecure, he will be sure to pay a very heavy penalty in damaged crops, breachy cattle and quarrels with his neighbors. From the best information that I can get, I come to the conclusion that good fences cannot be made at less than the average cost of one dollar the rod or perch. On this estimate, the cost of enclosing 23,040 acres, [the contents of a township,] in farms of a quarter section, or 160 acres each, with the usual amount of interior fences, will be $134,400; while the cost of fencing a whole township, in the same manner and at the same estimated rates, will amount to only $11,520. And thus it is apparent, that in the single article of fencing, the difference between the cost of making one large farm of a whole township, and making 144 farms, of a quarter section each, amounts to the enormous sum of $122,880. And this is a clear saving, and operates as a direct premium in favor of large farming. I do not say that it would be desirable or possible for all our farmers to operate on so grand a scale, nor that the plan would suit all parts of our country, or be convenient and proper for all, or perhaps any, of the minor productions, of rural labor. But as to the great staples of grain, grass, and animals, not intended for home consumption, but for distant markets, the temptation is so strong, that I have little fear in predicting, that in the course of a few years, we shall see many farms of at least a township in extent. The diminished cost of fencing is not the only economical inducement. The cost of preparation and outfit, in implements, animals, and shelter, is in about the same inverse ratio to the magnitude of the establishment. And even in the actual working of the soil, the saving in long rows, instead of short ones, is very great. Let me prove this by a practical demonstration. Suppose I wish to plow a field one thousand yards long, and one hunderd yards wide. If every furrow cut a foot in plowing crosswise, there will be three thousand furrows, and lengthwise only three hundred. Of course,

I must turn at the end of every furrow, whether long or short, and unless there be some cogent reason to the contrary, I will certainly plow the long way, for thereby I shall save all the time and labor which otherwise would be wasted in turning my team and plow two thousand seven hundred times—a pretty heavy item in breaking a lot of only twenty acres.

The part of our country commonly called the North-west, [including all of Illinois and the nort half of Missouri,] is admirably adapted to this kind of large farming. The prairies are broad, rich and smooth; there is no poor land, and very little too wet or too rough for easy culture. No forest, on which the farmer is required to waste, at once, his labor and his wood, in the clearing. Add to all this the rapid advance of inventive art, by which the weakness of the human frame is substituted by the power of wood and iron, and machinery is made to do a vast deal more work than could possibly be accomplished by manual labor. Already our small grain and grass are cut and threshed by machinery. But this is not the end; it is only the beginning of labor doing enginery in the great art. McCormick is not our only benefactor. Inventive genius will not die with him. His own valuable machine will be improved and perfected by himself or another; and other machines, perhaps, far more effective, will be found, when the occasion calls loudly for them. Already we reap and mow by machinery, and can it be that the restless and progressive mind of the country will consent to stifle its ruling passion and stand still, before it has learned how to plow and sow by the same means. No, never. One thinking head can do more work than fifty thoughtless hands. Genius and art and enterprise belong to the country, and are necessary to the full development of its vast capabilities; and trusting to the good providence of God, I confidently expect that they will be called into action, as soon and as fast as our occasions shall require their efforts. Who that has seen the steamboat, the railroad, the telegraph, the reaper, the thresher, and the sewing machine, can doubt that the broad plains of the West will be plowed, and sowed, and reaped, and mowed by machinery, as soon as the country shall be in condition to need so great an accession to its productive labor. When that time shall come, [and I think it is near at hand, and that we ought to be preparing to meet it,] the toiling farmer will be relieved from much of his severest drudgery, and the very horses and oxen will share in the gracious respite. For, assuredly, steam [or possibly something better,] will be harnessed to the plow and made to drudge for our daily comfort. Let no man be alarmed at so vast a new creation of productive labor, lest it should injuriously interfere with the occupations of men, by diminishing the profits of their work, or throwing them out of employment. There is no danger of such a result. In all the mechanic arts, in the power of locomotion, and in mechanism, generally, the effect of work-doing engines has been to increase the

demand for human labor, to multiply production and enjoyment, and to send down comforts and luxuries to the lower strata of society. It may induce many to change their vocations, by turning to other engagements more pleasant or more profitable, but it will deprive no man of employment who is willing to work. Success in agriculture needs and produces manufactures, commerce and transportation, and all these will require an increased number of hands. New crops will be introduced, such as silk, wine, fruits in variety, and drugs and dyestuffs without number; and perhaps even, the South African sugar cane may be found as well adapted to the middle and upper regions of the Mississippi, as the tropical cane to its delta. But above all, the great staples of the planting States—cotton, sugar, rice, tobacco—flourishing and prosperous as is their present condition, stand in urgent need of more hands. The labor in these staples is performed chiefly by slaves, and to me it is quite apparent that there are not half as many of them engaged in the work as might be profitably employed. This fact—the great want of labor in that department—is proved, I think, by two circumstances: 1. The high price of slaves in the planting States. I am credibly informed that an able young negro man will bring from twelve to fifteen hundred dollars, and that a first-rate crop hand, is usually hired for about two hundred dollars a year. Nothing but necessity and pressing lack of labor can justify such prices. 2. The immense quantity of good land lying idle and useless in the Gulf States, while cotton and sugar are commanding high prices, is to me conclusive proof that labor is badly wanted, and that twice or thrice as much might be well employed as can be obtained under existing circumstances. So far then from any injurious effect being likely to result from the increased production of provision and animals, and by means cheaper than human labor, it seems to me that its natural tendency must be favorable to all the interests of agriculture, and in nothing more beneficial than in relieving the necessities of the planting interest, by supplying it with the laboring hands which it stands so much in need of—that is, the slaves heretofore and now employed in the less profitable business of raising grain, grass and cattle. This result, I think, will certainly follow, but this alone may not be sufficient to fill the aching void. None can be had from abroad, for the law forbids importation; and the natural increase is too slow to answer the demand. The supply must come from other departments of husbandry which can spare the slave labor. Hemp and tobacco, though properly classed with the planting interest, flourish best in temperate regions, North of cane and cotton. As to hemp, I suppose it is as easy to raise the plant, as to raise wheat, but the handling and preparing of it for market, is said to be one of the most laborious operations in American farming. Heretofore all its work has been done by hand; but this state of things can not long continue; wood and iron will be substituted for the hands of men, and

the hemp crop, like the small grains and grass, will be cut and handled and dressed for market by machinery. Then the hemp-grower will be able to enlarge his crop so as to answer all profitable demands, and may still dispense with a large portion of his manual labor, which will be sure to find employment in the service of cotton and cane. The cultivation and preparation of tobacco is all done by hand, but it is comparatively light work, in which women and children, as well as men, may be employed. And hence it is probable that a large amount of voluntary labor will engage in that culture, whenever it is found to be more profitable than former occupations. This process, which, I think, will grow from year to year, will supersede many slaves now engaged upon tobacco, and they, like their brethren of the hemp crops, will go where they are most needed, to the fields of cotton and sugar.

There is nothing earthly so important to be rightly understood, and wisely and practically applied, as the great and complicated subject, Labor. It pervades society, making or marring, as it is well or ill-governed, the comfort and happiness of individuals, and the strength and glory of nations.

I have not attempted to treat the subject in detail—for that were impossible in such a discourse—but only to touch upon some of its corners and outlines, and to throw out a few hints, in order to put you upon the track of your own better thoughts, which you can follow out at leisure, to their legitimate conclusions.

The Learning. There was a time when a common error prevailed, to the effect that no learning is necessary to qualify a farmer for his trade,—that knowledge, which in all other callings, and in all other phases of human life, is power, is of no use in farming. Those, if any, who now entertain that opinion, so degrading to agriculture and so stultifying to its followers, ought to be pitied and forgiven, for the idea springs from that mental darkness and moral obliquity, which are greater misfortunes than faults. This Society was formed for the very purpose of collecting and diffusing knowledge; for bringing together and comparing [for mutual instruction and profitable learning to us all] the various productions of the soil and of the mind—the combined results of the land and labor of the State, controlled and directed by an enlightened intellect. The members of this Society need no argument to prove that knowledge, art, science, a thorough cultivation of the mind, are all necessary to enable a man to cultivate the earth to the best advantage; to understand and appreciate all the elements of nature, which are his co-workers, his partners in business, striving by united efforts, to bring about the great results he aims at. And how can he be a valuable assistant, a profitable servant in the great laboratory of God's own chemistry, Vegetation, unless he know something of the glorious art, which would teach him to understand the soil he tills and the air he breathes and how to separate or combine their component parts, to neutralize a bad ingredient, or

stimulate a good one into fruitful action. And how can he wisely select and profitably use the implements and machinery necessary to his daily business, if he be wholly ignorant of mechanical science? In short, I venture the opinion that there is no art or science befitting a gentleman to know, which may not be made, in some form or in some degree, subservient to the interest and the pleasure of the agriculturist. The whole encyclopedia is auxiliary to his noble vocation. Agriculture, as a separate department of industry, is by far the most important of all, and ought to exert a powerful influence, in forming the texture and tone of society, and in giving direction and force to the measures of government. Its members are not merely and simply tillers of the soil. They are citizens, also, with the rights and duties that belong to men of all other callings; the same general interests; the same hopes and fears, and the same honest ambition to rise to the high places of influence and power, and to be first among their equals. Then, how does it happen, that so few practical farmers are found in the high offices of government, exerting a personal influence in so moulding the measures of public policy, as to encourage and promote the great interest to which they are particularly attached? How does it happen that nine-tenths of the great public offices are filled from the, so called, learned professions? That fact is a fault in the actual working of our political machine—a great fault that there should be an apparent necessity to choose men from a few small classes only, to rule over the many. But not the fault of the members of those classes. They do right in acquiring as much knowledge as possible, and in fitting themselves, as well as possible for the eminent places to which they may honestly aspire. If any one of you ask me who, then, is in fault, I answer here, as Nathan answered David, "thou art the man." It is the fault of the farmers. They, as a class, condescend to a low place, and agree to remain uneducated and comparatively ignorant. And believe me, my friends, in the assertion of this affirmative truth, that whoever consents to ignorance, consents also to its inseparable companion, imbecility. But this state of things is coming to an end. The organization of this society is one among a thousand proofs, that the agricultural class, embracing as it does, the great body of the people, is determined henceforth to maintain its own rights, and fulfil its duties to the country, by self-improvement, by the culture of the arts and sciences, and by assuming the position in society, and exercising the influence in government, which belongs, of right, to its members, its wealth, and its incalculable usefulness. The means and the modes of accomplishing this great end, lie all open before you. They are too many and various to admit of discussion or even statement, now and here. Domestic instruction, common schools, academies and colleges, the habit of private reading for self-teaching, and of practical experiments, for the demonstration of the truth or falsehood of theories; these are some of the infinitely

various means by which the great object may be attained. When these and the like means shall have been fully and fairly tried, agriculture will take its proper relative position, and exercise its just share of influence in the country, and then its members will rejoice in the consciousness that they are as strong in knowledge as in numbers.

ARTICLE IV.

Chronology of the Western Country of the U. S.

BY MANN BUTLER, ESQ.

In 1837, I published an imperfect sketch of the Chronology of the Western Country of the United States, at Frankfort, Ky. It was partly introduced into the Annals of the West, by the lamented Perkins. Subsequent studies have enabled me to enlarge this sketch into the following form, which I now send you. It may refresh the memory, if not inform the mind of a bustling generation, engrossed by the enterprizes of trade and commerce.

The western territory of the United States has been the theater of many stirring events: such as the first explorations of the French voyageurs, the Roman-Catholic missionaries and the western pioneers, from 1634 to the battle of the Thames, in Upper Canada, in 1813. It has been a great debateable land between the white and the red races of men, the French and the English, and finally the English and Indians with our own countrymen. Here was the center of that *bow* conceived by French statesmen of the last century, whose ends were to be placed in Quebec and New Orleans, and whose *string* was to be the British colonies on the Atlantic. By this curvilinear establishment, it was sagaciously planned to bound and limit the British colonies in North America by the Alleghany mountains. The defeat of this profound scheme, and the burst of the British colonies into the full prosperity of the present republic of the United States, have been the result of the following train of interesting events during the French, British and American eras of power in the West and Northwest of America.

FRENCH ERA.

1634, Sept. French mission founded near Lake Huron.

1641. The French at the Falls of Ste. Marie, at the entrance into Lake Superior, called by them Mission de Sainte Marie du Sault; also called Le Sault de Ste. Marie. (Bancroft, III, 131.)

1659, 1660. First French missionary station on Lake Superior. (Idem, III, 146, 152.)

1665. Father Claude Allouez founds first permanent station on Lake Superior; map of the northwestern lakes published at Paris, as explored in 1660 and 1670.

1668. Mission at Ste. Marie Falls founded.

1670. Perrot explores Lake Michigan. Robert Cavalier De La Salle first goes to Canada from France. Lake Superior, the "head of Lake Huron and Michigan to the Baies des Puants (Green Bay) well drawn on French maps." (Bishop Bruté, of Vincennes, to the author.)

1671, May 16. The French take formal possession of the Northwest of North America. (Idem, III, 154.) Father *Marquette* founds the mission of Saint Ignatius on the Straits of Mackinac.

1673, May 13. Leaves Mackinac with Pere Joliet, to seek the Miss., which he had meditated in 1669.

June 10. Crosses from Fox River of Green Bay to the Ouisconsin or Wisconsin.

June 17. Reaches the Mississippi.

June 21. Meets Illinois Indians.

July. Reaches the Arkansas River, or Akamsca, as Marquitte calls it.

July 17. Returns by the way of the Illinois River to Mackinac.

1675, May 18. A map of the route published at Paris in 1680. (Idem, III, 161. Am. Biography, vol. X. Father Marquitte, New Ser. Butler's Ky., 2d edit., 492.)

1676. *La Salle* visits France; returns to Canada; rebuilds Fort Frontenac (the modern Kingston,) on Lake Ontario.

1677. Revisits France.

1678. *La Salle* and *Tonti* sail from France for Canada.

Sept. 15. Arrive at Quebec.

Nov. 18. Cross Lake Ontario.

1679. Loses his stores on the Lake; builds a vessel called the *Griffin;* sails for Lake Erie; 27th reaches Mackinac.

Nov. 1. *La Salle* at St. Joseph's of Lake Michigan. (Idem, III, 165.)

1680, Jan. 4. At Peoria Lake; builds Fort Creve Coeur, on the Illinois River.

Feb. 28. Father *Hennepin* sent by La Salle to explore the Upper Miss. (Idem, III, 166.)

Oct. and Nov. La Salle returns from Canada to the Illinois.

1681. La Salle and Tonti meet at Mackinac.

1682. La Salle goes from Chicago westward.

Feb. 6. Reaches the Miss.; descends to the mouth, and names the country Louisiana, in honor of Louis XIV. (Idem, III, 168.)

1684, July 24. La Salle sails from France for the mouth of the Mississippi.

Dec. 28. Discovers the main land.

1685. Lands at Mata Gorda Bay, and founds *St. Louis*, the first French establishment in Texas. (Idem, III, 171.)

1687, Jan. 12. La Salle murdered by one of his men, Duhout, on his way back to Canada, on a branch of the Trinity River of Texas. Idem, III, 173.)

1693. *Gravier*, the founder of Kaskaskia, was among the Illinois Indians; the precise dates of the foundation of Peoria, Cahokia and Kaskaskia are unknown. Letters of the French missionaries exist, dated "Aux Cascaskias, Nov. 9, 1712," also written Cascasquias. (Annals of the West, 1st edit., 30, and Bancroft, III.)

1698, Oct. 17. Lemoine D'Iberville leaves France for the Mississippi.

1699, Jan. 31. In Bay of Mobile.

D'Iberville visits the coast of Florida, discovers Dauphine, Ship and Horn Islands off the coast of Louisiana; erects huts on Ship Island. On the 2d of March, 1699, enters the Mississippi, returns to the Gulf by the river, still bearing his name; also called Bayou *Manchac;* erects a fort at the head of Biloxi Bay, and returns to France. [Idem, III, 200.]

1700. St. Denys ascended the Mississippi above the Wisconsin, the Chippewa and up the St. Peter's or Minnesota river to the mouth of the Blue Earth river, where he built a fort at a point now in the State of Iowa.

1701. *De La Motte Cadillac* founds *Detroit*, the oldest European settlement in the interior of Northwestern America, except points in Illinois. [Idem, III, 194.]

1702. The chief fortress of the French transferred from the Bay of Biloxi to the western bank of the Mobile river. [Id., III, 205.]

1712. Louis XIV. grants Louisiana to Anthony Crozat. [Id., III., 349.]

1716. The French used the Miami of the lakes or the Maumee in their interior expeditions, by way of the Wabash, [a name extended anciently to the mouth of the Ohio,] and the Ohio River. [Idem, 346.]

1716. Fort Rosalie at Natchez founded by the French. [Id., 349.]

Crozat surrenders his grant of Louisiana to the French crown.

1717. The Western Company obtained a grant of Louisiana from the French government. [Idem, 351.]

1723. Bienville transfers the seat of government of Louisiana to the site of the present city of New Orleans.

1712 or 1735. Vincennes, or St. Vincent, was settled in 1712, according to Bishop Bruté, of Vincennes, to the author; and was called the mission of St. Francis Xavier, or Wabash; but from the inquiries of M. Volney, on the spot, he could not conjecture it to have been settled before 1735. The Wabash river was formerly called the *St. Jerome*, as the Mississippi was called the *Colbert*.

1783, possibly 1749. The French erected a considerable fort at Presque Isle, 120 feet square, with walls 15 feet high; also another at Rivière Aux Boeufs, or Buffalo river, as it may well be translated. The name is a memorial of the ancient abundance of that huge kind of game in former times. This fort stood where the town of Waterford in Erie county, Pa., now exists. There was a road 21 feet wide between Presq' Isle and Rivière Aux Boeufs. [Sargent's History of an Expedition against Fort Du Quesne, in 1755. Phila., 1855.]

1752. A fort existed and was captured by the French at the mouth of Loramie's creek, which discharges into the Great Miami, 16 miles north-west of Sidney, in Shelby county, Ohio. It was the site of Loramie's store, and is constantly referred to in our Indian treaties.

1753. Fort built at Venango by the French, at the mouth of French Creek.

1754. Fort Du Quesne built, on the capture of Ensign Ward and garrison.

1754, July 4. Fort Necessity surrendered to the French by Maj. Washington.

1755, July 9. French with Indians defeated Gen. Braddock. This battle is called by the French, the battle of Monongahela, by the Americans, Braddock's defeat.

1760, Sept. 19. Maj. Rogers takes possession of Detroit for the English government, and by the consent of Pontiac, the great Ottawa chief.

1762. The French cede Louisiana to Spain, in compensation for her loss of Florida.

1763, Feb. 10. Peace concluded at Paris between Great Britain, France and Spain, by which the French surrender all Canada to the British, and abandon the continent of North America, after one hundred and fifty-five years' possession; supposing Quebec to have been founded in 1608.

1764, Nov. 3. Ligueste La Clede, with Auguste and Pierre Chouteau in his employment, arrive at Ste. Genevieve.

Dec. Selects St. Louis as a trading post, and lands at the north-eastern corner of Market and Front streets, in the present city of St. Louis.

1765, July 17. Captain Sterling takes possession of Illinois and Fort Chartres on the Mississippi for Great Britain.

1800, Sep. 30. Spain recedes Louisiana to France, subject to previous treaties of Spain with other States.

1803, April 3. France cedes Louisiana, subject to previous treaties, to the United States for $15,000,000.

Dec. 20. The Commissioners of the United States received possession of Louisiana from M. Laussat, the French Commissioner.

1804, March 9. The United States received possession of St. Louis and Upper Louisiana by Amos Stoddard, joint commissioner of France and the United States. This terminates the French connection with the continent of North America. [Stoddard, p. 104.]

ARTICLE V.

The Domestic Slave Trade.*

From the M.S.S. of the late HUGH A. GARLAND, Esq.

That a traffic in slaves has grown up between the Atlantic and the Southern States, in consequence of the indebted and impoverished condition of the one, and the fresh lands and valuable staple of the other, cannot be denied. That the slave coffle has been seen in our streets and along the highways of our Republic, is to be deplored. None have deplored it more than the slave owner himself. He has wept over it; prayed over it; wrung his hands in anguish over it, and has never ceased to look in hope to the Providence of God for some deliverance from it. Its demoralizing influence on the whole community cannot be mistaken. Driven by necessity to tolerate its existence, the planter himself looks upon it as a blighting curse to his country. And for its introduction and legal sanction, he is indebted—as he is also for the original African slave trade—to that kind fostering mother of us all, benevolent and disinterested England.

In the Colony of Virginia, slaves, by the Act of Assembly passed in 1705, were declared to be *real estate*, and subjected to the law of descents as such. The executor could not dispose of them, as

* We use this occasion to express our sincere regret that the author of the manuscript here referred to should have departed this life before completing what we believe he regarded as his chief work. His object was to produce a book on the subject of slavery in general, in which he designed to give a history of slavery in this and other countries, and also to examine its relations to a state of civilization and its influence upon the African race, as well as upon the character of the people by whom they are held in bondage. And we trust that some individual will be found who will prepare the book for the press, and rescue from oblivion the last labors of our deceased friend.

he might of the personal estate, for the payment of debts; there was no law making them chattels, or declaring them assets in the hands of the executor. Because slaves having been declared to be real estate, could not, as such, have been applied by the executor to the payment of debts, a law was passed in 1748, authorising the sale of slaves for the payment of debts upon the failure of personal estate which had first to be exhausted.

But the legislature in the law was careful to distinguish this species of property from mere chattels. By a reference to other laws, we shall find, that slaves were always contemplated as a species of property totally unlike to personal estate. Thus, in the law respecting distributions, slaves were not comprehended under the words *goods*, *chattels* and *personal* estate. Again, by the same law, the executors or administrators might distribute the personal estate after nine months from the death of the testator—but by the Act of 1748, the slaves of a decedent are to continue on the land to finish the crop at the close of the year, when they were to be delivered to those having a right to them, well clothed at the expense of the estate, and their *crops* are declared to be assets. Thus we see that by the early laws of Virginia, slaves had attached to them some of the properties belonging to the serfs of Europe—were attached to the soil and could not be sold for the payment of debts.

But these laws did not suit the purpose of English creditors; finding that the annual crops shipped to England did not meet the indebtedness of the colonies, and not being able under the common law to subject the lands to sale, they procured a statute to be passed, the 5th year of George II., entitled "An act for the more easy recovery of debts in his Majesty's Plantations."

By this law, slaves were subjected to sale for the payment of debts.

The system of slavery was forced on the Virginians by act of Parliament; but at an early day they showed their intention to mitigate its evils by attaching their slaves, and making their condition similar to that of the serfs in Europe; but by another act of the same British Parliament, they were compelled to abandon their humane intention, convert their slaves into chattels, and expose them to sale to the highest bidder for the payment of British creditors. When the subject of the slave trade was under discussion, in 1773, many propostions at the same time were made with a view

to the amelioration of the condition of the slaves in the West India Islands. But Parliament was told, that all the regulations which can be devised for the protection and improvement of this unfortunate class of people, will be of little avail, unless, as a preliminary measure, they shall be exempted from the cruel hardships to which they are now frequently liable, of being sold by creditors, and made subject in a course of administration, to the payment of all debts both of simple contract and specially. This grievance, so remorseless and tyrannical in its principle, says the petitioner, and so dreadful in its effects, is now upheld and confirmed by a British act of Parliament. It was procured by, and passed for the benefit of British creditors. Thus the odious severity of the Roman law, which declared sentient, beings to be *inter res*, is revived and perpetuated in a country that pretends to Christianity. In a few years a good negro gets comfortably established, has built himself a house, obtained a wife, and begins to see a young family rising about him. His provision-ground, the creation of his own industry, and the staff of his existence, affords him not only support, but the means also of adding something to the mere necessaries of life. In this situation, he is seized by the sheriff's officer, forcibly separated from his wife and children, dragged to public auction, purchased by a stranger, and perhaps sent to terminate his miserable existence in the mines of Mexico, excluded forever from the light of heaven, and all this without any crime or demerit on his part, real or pretended. He is punished because his master is unfortunate. Neither can it be urged, says the petitioner, that, like some unauthorised cases of cruelty in the West Indies, it occurs but seldom: unhappily it occurs every day, and, under the present system, will continue to occur, so long as men shall continue to be unfortunate. Let this statute then be totally repealed. It is injurious to the national character; it is disgraceful to humanity. Let the negroes be attached to the land, and sold with it. The good effect of a similar regulation in the system of ancient villenage has been pointed out and illustrated by a great many writers; and those persons who now oppose an extension of the same benefit to the negroes in the West Indies, would do well to reflect that while they arraign the conduct of the resident planters towards their slaves, they are themselves abetters and supporters of the greatest of all the grievances under which those unfortunate people continue to suffer. Thus did a West India planter appeal to the legislature of

his country; but among the loudest of the declaimers against slavery and the slave trade, among the most violent petitioners to Parliament for their abolition, not one could be found to solicit the repeal of this execrable statute. The society in the Old Jewry, the prototype of Exeter Hall, though apprised by the West India planter of the grievance, its origin and the remedy, were profoundly silent on the subject. They proved themselves to be men of the world, and with all their philanthropy, they probably considered no rights so sacred as those of creditors.

To return to Virginia. Ever since she has been a sovereign State, her own necessities and the demands of her creditors, have compelled her to keep up a traffic, which in the first instance was forced upon her by the cupidity of British creditors, and which at all times has been odious to her people. Exhausted lands, a family of negroes, and debt, have been the inheritance of the Virginian for more than half a century. Without means or skill to improve his lands, and without resources to pay his debts save those derived from the sale of his scanty crops, when these failed from any cause, he had nothing left but a sale of property, or the repudiation of his debt, as an honest man, he preferred the first alternative, however cruel it might be.

Owing to a series of causes, the staple products of Virginia did not bring remunerative prices for many years. They consisted of tobacco, flour, and Indian corn, and had been usually sent to a foreign market; but the maritime war between England and France, beginning with the French revolution, nearly annihilated American neutral commerce, and cut off every market for American produce.

This state of things was aggravated by the acts of our own government, until the close of the war, in 1815; then followed a brief period of prosperity, soon to be destroyed by a most disastrous pecuniary revulsion, occasioned by the failure of numerous paper banks, which had sprung up during the war, and flooded the country with their worthless issues. No sooner had they recovered from this evil, and tobacco began to bear a price, when the Protective Tariff was fastened upon them by means of which the planters were compelled to buy New England goods, while Old England remained the only market for their tobacco. But as British goods could not be taken in exchange, he, of course, had to take a less price for his commodity, with the same duties and factorage; with this reduced return for his agricultural products he had to pay the

New England manufacturer a *protective* price for an inferior article of manufactured goods. Hence we see that, in consequence of a series of causes over which he had no control, the current of trade has always been against the Virginia planter; it has invariably taken the direction of the Gulf stream. Now the question is, how was he to meet this constantly recurring balance of trade on the wrong side of the ledger? The annual crops failed to make the liquidation; there were left the land and the labor upon it, constituting his sole capital; the land had no price in market, and besides could not be sold unless he intended to abandon the country; the negroes had a value in consequence of the great demand for cotton in the northern and British factories—as a matter of course, they had to be sold—whenever the balance was adjusted in one, three, or five years, as many of the best negroes had to go, as there were years of delay. It was no matter of choice with the planter, but one of dire necessity; the inexorable law and the sheriff's writ had to be obeyed. Often has he cursed the inheritance that mother England forced his forefathers to impose upon him: an inheritance of woe and ill instead of a blessing.

And so it is, that no fact in history can be more clearly established than this, that the merchant and the manufacturer, and through them, the whole population of the commercial States have not merely enjoyed the surplus fruits of the sweat and toil of Virginia slaves, but have actually lived on the sale of the flesh and blood of their fellow-beings.

But for the statute in Virginia and other States, reducing slaves to the condition of chattels and subjecting them to the payment of debts, many a palace would not have reared its proud front on Broadway and Fifth Avenue, many a factory in New England would have ceased its perpetual din, and many a temple that lifts its tall spire to greet the morning sun, would have remained an idle project in the fancy of its pious and godly builders.

But a better day, it is to be hoped, has dawned upon those unfortunate States. They have passed through the transition state; the time of exhaustion is at an end, and the signs of a new life begin to make their appearance. Many of the best and ablest men have devoted themselves to the business of agriculture—a scientific knowledge in that department is looked upon as a duty—idleness and dissipation are no longer characteristic of the planter; he has taken hold of his business with enthusiasm, and by means of

guano, marl, lime and compost manures, has already converted his red gullies into green pastures, and the barren pine thicket into rich golden harvest fields. Agricultural societies are encouraged; model farms projected at large expense, on which all manner of experiments are to be tried. But there are already many model farms in the possession of private owners, that show what slave labor and Virginia soil can produce. One of these, and our comments thereon, shall be the subject of another chapter.

ARTICLE VI.

(From the U. S. Mining Journal.)

On the Manufacture of Steel as carried on in Great Britain and other Countries.

BY CHARLES SANDERSON.

Continued from p. 353.

I take the manufacture of puddled steel as next in order, because the product is similar to that of natural, that being obtained direct from the crude pig iron. It is a steel of recent invention, and its manufacture is carried on entirely at Westphalia. But a few years ago a very small quantity of the steel was produced from one works. There are now several large establishments for its manufacture. The produce is becoming considerable, and is likely to increase, on account of its cheapness.

The object of the operation is similar to that of raw steel, to decarbonize pig iron down to that point at which it can be treated as steel. The process is this—About 280 lbs. of pig iron are charged into a puddling furnace. As soon as this metal begins to melt the damper is partly closed, and from 12 to 16 shovelsful of cinder, &c., as it comes from the hammer and rolls, are thrown into the furnace; the whole is then melted down together, and the mass is puddled with great care. The metal having become so far decarbonised as to lose its liquidity, the damper is opened, and 40 lbs. of pig iron is charged near the fire-bridge of the furnace. This is allowed gradually to melt and mix itself gradually with the metal previously charged, which causes it to boil; a blue flame rises from the surface of the mass, and very shortly the metal stiffens. The damper is again three-quarters shut; and the mass is worked until it becomes waxy. The metal is then collected into balls and hammered into blooms. The steel is very imperfect; too much depends upon the manipulation of the process; it is out of sight of the

workman, and equally from under his control, being continually covered with cinder. Practice has, no doubt, assisted materially in the improvements made in the manufacture of this steel since its introduction, but it is evident that steel produced by such a process can only be servicable for the commonest purposes, being subject to many serious imperfections. The blooms resulting from the process described, are drawn, doubled, and welded in the same manner as charcoal raw steel is refined; yet such is the acknowledged superiority of this steel that whilst charcoal natural steel sells for £18 per ton, the puddle steel will not command more than £14 per ton, and an equal reduction is made on the refined steel, manufactured from puddle steel blooms.

The next process is the Paal method, so called from the name of the works at which the plan is used; they belong to Prince Schwartzenberg, near to Murrau, in Styria. The process is based upon the old one of Vanaccio; it consists of plunging iron into a bath of melted metal. The carbon of the metal combines with the iron, and in a very short time converts it into steel. This process was carried further by Vanaccio, who contrived to add wrought-iron to the metal until he had decarbonised it sufficiently; this was found to produce a steel, but unfit for general use; that produced by plunging iron into metal was found to be very hard on the outside, but iron within; whilst that produced by adding iron into the metal, was found too brittle to be drawn. The Paal method, however, as I saw it used at these works, is a decided improvement in the manufacture of refined natural steel. They produce natural steel at the Prince's various works, and bring it to Paal to be refined. The packets, as already described in the refinement of natural steel, are welded and drawn to a bar; whilst hot it is plunged into a bath of metal for a few minutes, by which the iron contained in the raw steel becomes carbonised, and thus a more regular steel is obtained than that produced by the common process. The operation requires great care, for if the bars of steel be left in the metal too long they are more or less destroyed, or perhaps entirely melted. It commands a little higher price in the market, and is chiefly consumed by the home manufacturers, excepting a portion which is exported to Russia.

I have now described the manufacture of steel by various processes, in all of which the carbon is derived from the metal itself, and in which the whole molecules of the metal may be said to be equally charged; they contain the necessary amount of carbon, or steelifying principle, within themselves, and to this may be attributed the reason why, after repeated heating and hammering, the steel never losses its property of hardening. On this account natural steel is used almost exclusively by the Mexican and South American miners for their tools.

I shall now turn to the second mode of producing steel, by in-

troducing carbon into iron to such an extent as may be needful for the various purposes to which it is to be applied.

In explaining the theory and practice of manufacturing natural steel, I have shown that the object is to prevent the mass from becoming iron, the process being arrested at that point where the metal has lost so much of its carbon that the remainder is necessary for it to possess as a steel.

The process of converting iron into steel by cementation is the reverse of the process already described. Iron, to be converted, is placed in a furnace stratified with carbonaceous matter, and heat being applied, the iron absorbing the carbon, a new compound is thus formed.

When this process was discovered is not known. At a very early period charcoal was found to harden iron and render it a sharper cutting instrument; it seems probable that from the hardening of small objects bars of iron were afterwards submitted to the same process. To Reamur certainly belongs the merit of first bringing the process of conversion to any degree of perfection. His work contains a vast amount of information upon the theory of cementation; and although his investigations are in many instances not borne out by the practice of the present day, yet the first principles laid down by him are not the guide of the convertor; our furnaces are much larger than those used by Reamur, and they are built so as to produce a more uniform and economical result; they give, however, precisely the results which he obtained in his small ones.

A converting furnace consists simply of two troughs, built of fire-brick, 12 feet long, 3 feet wide, and 3 feet deep; the fire-room is placed between them, and the whole covered by an arched vault, so that the heat may pass entirely around these troughs and distribute itself equally. The bar iron is placed within these troughs, stratum super-stratum laying with charcoal, which is broken to the size of beans. When the troughs are full they are covered with sand or loam, which partially petrifies and cakes together as the heat of the furnace increases, and thus, by hermetically sealing the top, the air is excluded. This furnace being charged with about 20 tons of iron, the fire is lighted, and in the course of 60 or 70 hours the iron will have become fully heated; at this point the conversion commences. The pores of the iron being opened by heat, the carbon is gradually absorbed by the mass of the bar, but the carbonisation or conversion is effected, as it were, in layers. To explain the theory in the clearest manner, let me suppose a bar to be composed of a number of laminæ—the combination of the carbon is first effected on the surface and gradually extends from one laminæ to another, until the whole is carbonised. To effect this complete carbonisation the iron requires to be kept at a considerable uniform heat for a length of time. Thin bars of iron are much sooner converted than thick ones. Reamur states, in his experiments, that if a bar of iron 3-16ths of an inch thick is converted

in six hours, a bar of 7-16ths of an inch would require 36 hours to attain the same degree of hardness. The carbon introduces itself successively, the first laminæ or surface of the bar combining with a portion of the carbon with which it is in contact, gives a portion of the carbon to the second laminæ, at the same time taking up a fresh quantity of carbon from the charcoal; these successive combinations are continued until the whole thickness is converted; from which theory it is evident that from the exterior to the center the dose of carbon becomes proportionately less. Steel so produced cannot be said to be perfect; it possesses in some degree the defect of natural steel, being more carbonised on the surface than at the center of the bar. From this theory we perceive that steel made by cementation is different in its character from that produced directly from crude metal. In conversion the carbon is made successively to enter the center of the bar, whilst in the production of natural steel, the molecules of metal which compose the mass are *per se* charged with a certain per centage of carbon necessary for their steelification; not imbibed, but obtained by the decarbonisation of the crude iron down to a point requisite to produce steel.

During the process of cementation, the introduction of carbon disintegrates the molecules of the metal, and in the harder steel produces a distinct crystallisation, of a white silvery color. Wherever the iron is unsound or imperfectly manufactured, the surface of the steel becomes covered with blisters, thrown up by the dilation of the metal and introduction of carbon between those laminæ which are imperfectly melted. Reamur and others have attributed this phenomenon to the presence of sulphur, various salts, or zinc, which dilate the metal; but this is incorrect, because we find that a bar of cast-steel which is homogeneous and perfectly free from internal imperfections never blisters, for although it receives the highest dose of carbon in the furnace, yet the surface is perfectly smooth. From this it is evident that the blisters are occasioned by imperfections in the iron. Iron increases, both in length and weight, during conversion. Hard iron increases less than soft. The augmentation in weight may be said to be 1-200th, and the length 1-120th, on an average.

[To be continued.]

ARTICLE VII.

The End and Removal of Marion College.

An Extract from a forthcoming work to be entitled: "Twenty-four Years' View of Palmyra and Marion County in Missouri."

BY J. P. RUTTER.

Dr. Bosley slowly, but finally recovered from the wound inflicted by Muldrow. Muldrow was tried and acquitted, but the opposition to the college and those connected with it, which had previously existed, was greatly augmented by the circumstances attending those scenes of violence just narrated. Muldrow made a third visit to the East, but intelligence of the difficulty, with its attending circumstances, had preceded him; and he was not able to effect much; besides the loss of confidence from this cause, a pressure in the monitary concerns of the country had just commenced at the east. He saw with his intuitive forecast the adverse turn of his prospects, and hastened home to save himself from entire ruin. Elated with the unparalleled success that had hitherto attended him, he, in common with all others, had pushed his speculating enterprises too far, and without anticipating a revulsion so soon, had extended his credit and incurred liabilities to a very large amount. In fact, all were involved in the same way, to an extent that they were not able to meet on a sudden call. Dazzled by the splendid visions of more than princely wealth and grandeur which rose up before them, the whole community had been completely blinded to the danger that might possibly lurk in their pathway, and plunged recklessly in debt in order to grasp the larger prize of speculation. Hence the whole country was illy prepared to meet the earthquake-shock of disaster, borne on the wave of adversity, which rapidly rolled from east to west, in its course of dissolation, and was soon upon them. Litigation with its thousand evils poured into our Courts; the docket was crowded; all saw ruin staring them in the face, save the hyena-like lawyer, who enjoyed a rich harvest with peculiar zest.

Muldrow, who but a short time before had prospectively counted his millions, now addressed himself to the necessary but less pleasing task of saving himself from utter ruin, and to effect it, had to tax his utmost ingenuity; and perhaps none but himself could have so well succeeded in extricating himself from the threatened destruction which surrounded him. He made an assignment of his

property *ostensibly* to secure his creditors: the list of property was very long, and he artfully included amongst his own lands, much land that was not entered at all, but still belonged to the government. This was soon discovered. Many of his creditors whom he had provided for in the deed of trust, would not abide by it, but brought suit and obtained judgment, but at the sale of the property every person was afraid to bid, not knowing which tracts were Muldrow's, and which belonged to the United States. The result was that the brothers and other friends of Muldrow bought in the property at a mere nominal price—the lands generally for a cent per acre. At the trustee's sale of the balance of the property, the same result followed, and the legal title to his property passed into the hands of his friends, where it yet remains. He then employed an agent to buy up his debts for a trifle, which in many instances was done. Some of his creditors, however, refused to take what was offered them, and their claims still hang over him. He also employed an attorney to go to the east and collect the amount of the notes taken there for Marion City lots. But the purchasers would not pay, alledging fraud in the sale and a non-compliance with the conditions of the purchase, in the failure to make the stipulated improvements in the city, in consequence of the pressure referred to.

The other important personages connected with the college, not possessing as much cunning as Muldrow, became victims to the difficulties environing them. They fell out amongst themselves. Brother went to law with brother, and Presbyterian minister with Presbyterian minister. Their property alternately was sold at great sacrifice, and all of them became insolvent, except Rev. James Gallaher, who managed to take care of number one. Thus were all their day dreams of grandeur and magnificence exchanged for the *reality* of disappointment, and the ardor of their zeal in the good cause of religion and the world's conversion, abated with their disappointment in the causes which produced it, and they were left to soliloquise on the vanity of all sublunary things, and to exclaim in Scripture language, "How are the mighty fallen!"

Amongst the closing scenes of their downfall, was a law suit in which brother Muldrow was plaintiff and brother Ely defendant,—and although Dr. Ely knew more about *gospel* than Muldrow, at the *law* he was completely foiled by his adversary, and it became to him emphatically a *schoolmaster* to bring him to a knowledge

of the ways of the world. Muldrow gave the finishing touch to his downfall, by selling his last remaining property. On a certain occasion they had an unpleasant and somewhat unbrotherly conversation about matters and things in general, and something else in particular, during which the Doctor sharply upbraided his brother, like Paul did Peter, only a little more so, observing that when he came to this country, he was worth one hundred thousand dollars, and that now he was worth nothing, and that he [Muldrow,] was the cause of it. To which Muldrow very coolly and with the utmost sang-froid replied: Do I understand you to say, Dr. Ely, that you are now worth nothing? On the Doctor answering in the affirmative, Muldrow replied in his peculiar style: Well, sir, you may just exactly, sir, return to Philadelphia, just as soon as you please, sir, for we have no further use for you at all, sir.

Some further efforts were made to save the college, and also to build up Marion City, but failure was the result in both instances. As an expedient to raise funds for the use of the college, the faculty adopted the practice of selling scholarships for a certain sum, in consideration of which the person purchasing had the privilege of sending one scholar to the college for an indefinite period without additional charge. There was, however, a failure in general confidence in the institution, and some who had not paid the money, but only executed their notes, refused to pay. Lawsuits, with their costs, ensued, and in turn, the college itself was sued, and its property sold at great sacrifice. Dr. Potts, the worthy President, to whom no censure attached, resigned the presidency some time before the final overthrow of the institution, and was succeeded by the Rev. Hiram P. Goodrich, D. D., a gentleman equally worthy, who did all that prudence and talents could effect to avert its impending fate, but without avail—it was too late. Thus was this institution of high and noble purpose, and with such large promise in its inception, overthrown, mainly, by mingling with its lofty and praiseworthy aims, the sordid motive of individual speculation. The efforts to save Marion City, as intimated above, were equally unsuccessful. It lingered out for a while a living death. A few families, perhaps half a dozen, still remain as joint tenants with the original proprietors, and carry on the business of a warehouse, tavern and grocery.

The property of Marion College was purchased by the Masonic Fraternity, for the noble object of educating orphan children of

poor deceased brothers, and an institution founded, called "Masonic College." After being in operation some time, it was, we suppose, judged to be for the advantage of the institution, to remove it from the old site of unfortunate associations. The property was therefore again sold, and the institution located at Lexington, Lafayette county, on the Missouri, a fine location, in the midst of a moral, wealthy and intelligent community, where, from all the information we have been able to obtain, we believe it is steadily advancing in its career of usefulness.

Article VIII.

From the Patent Office Report.

Light and Shade.—Their Influence on Vegetation.

Light produced by the rays of the sun is a most important agent in the development of plants, the green color of their leaves, fruits, twigs, &c., being generated by its action; but it is not necessary to have the direct solar beam—diffuse daylight is sufficient—although the action is not, in this case, so rapid and energetic as when aided by the bright rays of the sun. Mould and some kinds of mushrooms, however, grow and thrive without light. It is a well known fact, that most of the mushrooms used in Paris are grown in the catacombs under that city, where the light of the sun is never seen; but trees and the plants usually cultivated can not long exist in a healthy state without its presence.

All green and living plants exposed to the light, and living upon atmospheric air, obtain most of their carbon from its carbonic acid, [which they imbibe and decompose,] their hydrogen from its moisture, and their nitrogen partly from the ammoniacal vapor which therein exists. But in the absence of light, oxygen is withdrawn from the air, the carbonic acid emitted, and plants in the dark deteriorate the air in which they are confined; whereas, when exposed under the open canopy of heaven to the alternations of light and darkness, sunshine and gloom, exactly the reverse is the case. Hence we have the fullest reason to believe that plants are nourished by the carbonic acid of the atmosphere, which is absorbed directly by their leaves from the surrounding air, and also by their roots, when dissolved in rain-water; and further, that the rapidity of the decomposition bears a direct relation to the intensity of the light.

In the tropics, for instance, vegetation is wonderfully active, and this is due as much to the brighter sunshine as to the more

elevated temperature of these parts. There is no difficulty in obtaining in a stove, nor in a conservatory, an atmosphere as warm, and, if necessary, as moist as may be desired, and the plants of hot countries may be cultivated with a certain degree of success in such a situation; but they never exhibit the thriving and beautiful appearance, the deep-green color, characteristic of health, belonging to them in their natural state. We may substitute artificial warmth for that of the sun, but we cannot supply the place of its light.

How necessary light is to the health of plants, may be inferred from the eagerness with which they appear to long for it. How intensely does the sunflower watch the daily course of the sun! How do the countless blossoms nightly droop when he retires, and the blanched plant strive to reach an open chink through which his light may reach it! Thus a potato has been observed to grow up in quest of light from the bottom of a well twelve feet deep; and in a dark cellar a shoot of twenty feet in length has been met with, the extremity of which had reached and rested at an open window.

That the warmth of the sun has comparatively little to do with this specific action of his rays on the chemical functions of the leaf is illustrated by some interesting experiments of Mr. R. Hunt, of England, on the effect of rays of light of different colors on the growing plant. He sowed cress seed, and exposed different portions of the soil in which the seeds germinating to the action of the red, yellow, green and blue rays, which were transmitted by equal thicknesses of solutions of these several colors. "After ten days, there was under the blue fluid a crop of cress of as bright a green as any which grew in full light, and far more abundant. The crop was scanty under the green fluid, and of a pale-yellow, unhealthy color. Under the yellow solution, only two or three plants appeared, but less pale than those under the green, while beneath the red a few more plants came up than under the yellow, though they were also of an unhealthy color. The red and blue bottles being now mutually transferred, the crop formerly beneath the blue in a few days appeared blighted, while on the patch previously exposed to the red, some additional plants sprung up." From the result of these experiments, it has been recommended that a cheap blue glass be employed for glazing hot-houses, conservatories, &c., instead of the kind in common use.

Besides the rays of heat and of light, the sunbeam contains what have been called "chemical rays," not distinguishable by our senses, but capable of being recognized by the chemical effects they produce. These rays appear to differ in kind, as the rays of different-colored light. It is to the action of these chemical rays on the leaf, and especially to those which are associated with the blue light in their solar beam, that the chemical influence of the sun on the functions of the leaf is principally to be ascribed.

On the contrary, there are important relations in respect to *shade*, which necessarily have influence upon the power of promoting vegetation. Every farmer knows, that when a soil has been shaded for a considerable time by a dense crop of clover, ray-grass, hemp, turnips. cabbages, peas, &c., or is covered by buildings, boards, stones, shavings, sawdust, tan-bark, chaff, straw, coarse hay, or other fibrous matter, though naturally hard and stiff, becomes mellow, soft and free, and obviously is in a state of fermentation. This may be accounted for on the principle that putrefaction, or solution of vegetable substances in the soil, is more readily promoted by a close or stagnated state of the air, than by a constant supply and addition of oxygen from a pure atmosphere; or, in other words, that such a covering will prevent the excessive exhalation of moisture, nitrogen, hydrogen, and carbonic acid gases, which accumulate and thereby promote the putrefaction or decomposition of vegetable matters, and thus enrich the soil.

It is upon this principle, that the new and peculiar kind of manuring, called *Gurneyism*, depends, which is stated to have been employed with signal success, by Mr. Gurney, a farmer of East Cornwall, in England, some years since. The operation consists in covering grass lands with long straw, coarse hay, or other fibrous matter, which is allowed to remain upon the ground until the grass springs throught it to the desired height, and then raking it off and spreading it on another portion of the field, the operation being repeated as long as the straw or hay remains sufficiently entire to be conveniently applied. It is upon the same principle, too, that orchards and fruit trees are rendered more productive by *mulching* with straw or refuse hay around their trunks and over their roots; and from this, and other causes, the quality of a poor, thin, unproductive soil, which has been for some time shaded by a brush wood or a dense forest, is materially improved. In a forest, however, all other vegetation being prevented, the land besides receiving a yearly manuring of vegetable mould from the fallen leaves, is caused to be many years in interrupted fallow; and is sheltered, also, from the beating of rain drops, which slowly and gently descend upon it, fraught with principles of fertility, instead of washing out the valuable saline matter it may contain. Beneath the overshadowing branches of a forest, too, the soil is also protected from the wind, and to this protection, Sprengel attributes much of that rapid improvement so generally experienced where lands are covered with woods. The winds carry along with them earthy matter, which they again deposit in the still forest, and thus gradually form a soil even in places where it is the most bare.

Independent of the above considerations, *shade* is necessary for all plants in their infancy, when they are diseased, or when they have suffered violence by removal. Seeds germinate best in obscurity, and young plants thrive better when shaded for a few days after they are up. The clouds often furnish such shade; but art

may use means to give it to them. Seeds that are necessary to be sown on the surface, or with a little earth over them, also grow best if shaded for a time. Shade, too, is necessary for such plants as it is desirable to prolong their freshness and flowering; and it is equally important, and almost indispensable, to all cuttings, or slips, in order that they may root well. But plants in the light purify the air by absorbing carbonic acid and disengaging their oxygen, and at night they corrupt the air by suffering carbonic acid to escape without being decomposed. D. J. B.

Grape Culture in Hermann, Mo.

About 500 acres in Gasconade County, chiefly in the vicinity of Hermann, are planted with vines, mostly Catawba. Mr. Jacob Rommel, who devotes much of his time to grape culture, informs us, however, that Norton's Virginia Seedling, which was originally taken by Norton of Virginia to Fleshing's garden in New Jersey, whence the cuttings were brought to Missouri by Mr. Wiedersprecher, and planted by Mr. Rommel himself in 1846, is the most valuable species. In 1848 he pressed the first wine from the Norton's Virginia grape in Missouri, and it was then pronounced, by the wine testers, better than any other red wine, except catawba, when catawba grows well. But the peculiar facts in favor of the Norton are that it blooms 8 days later, and ripens 14 days earlier than the catawba, and while the leaves are green which protect the fruit. Mr. Rommel has now about from 35 to 40 sticks of the Norton in bearing, and they yielded 22 gallons in 1855. In 1853 one stick of the Norton yielded 2½ gallons of wine, and these grapes produce regularly every year, even when the catawba fails entirely.

An acre contains on an average about 1250 sticks of grapes, and the wine crop averages about 300 gallons to the acre, although Michel Poeschel and Gottlieb Ackerman, of Hermann, produced, as reported, in 1848, at the rate of over 1000 gallons per acre.

In Ste. Genevieve, Cooper, Franklin, St. Louis and other counties in Missouri, about 250 acres are planted in grape.

This year it is said the yield will be small, but on an average from the 750 acres the wine crop of Missouri should amount to 225,000 gallons, and at $1.25 per gall., over $280,000 at the press. This result, we hope, will be attained in a few years, when these vines arrive at full bearing, and that the grape culture will be rapidly promoted by the Missouri Wine Co., established in 1853, and incorporated in 1855.

COMMERCIAL STATISTICS.

Commerce of New Orleans.

We are indebted to Messrs. Humphreys, Tutt & Terry for the following annual report of the Commerce of New Orleans.

Exports of Cotton, from New Orleans for five years—commencing Sept. 1, and ending August 31.

Whither Exported.	BALES OF COTTON.				
	1854–55.	1853–54	1852–53.	1851–52.	1850–51.
Liverpool	702541	779021	869835	751172	562277
London	833	.....	50	.....	.....
Glasgow & Greenock	8621	12851	39767	11700	15418
Cowes, Falmouth, &c	3460	15611	12434	7211	4678
Cork, Belfast, &c	1873	6253	.....	2159	.....
Havre	168650	185254	202957	183054	125067
Bordeaux	1814	1285	2317	1554	1164
Marseilles	3486	2019	5098	4308	4131
Nantz, Cette & Rouen	4873	5013	1154	7338	.....
Amsterdam	1875	4211	1375	259	489
Rotterdam & Ghent	1907	1310	1982	1507	1468
Bremen	29451	32349	14621	10248	12905
Antwerp, &c	7877	9010	22232	24562	10366
Hamburg	5661	23709	10531	17694	3235
Gottenburg	9040	13152	7392	6634	8180
Spain and Gibraltar	47154	58796	51443	47645	41018
Havana, Mexico, &c.	18787	24935	20693	11919	565
Genoa, Trieste, &c	43223	52240	76902	75093	42537
St. Petersburg, &c.	.....	9634	37502	15046	11143
Other Foreign ports	6821	.....	.....	.....	.....
New York	69959	58168	73043	101938	52398
Boston	118675	113851	151580	128629	82540
Providence, R. I.	1458	.....	16028	4561	.....
Philadelphia	8105	14054	19362	15594	14867
Baltimore	4070	4057	5126	4745	2511
Portsmouth	.....	2139	.....	.....	.....
Other coastwise po's	50	258	357	45	1
Western States	.....	.....	1200	1200	500
Total	1270264	1429180	1644981	1435815	997458

Recapitulation.

Great Britain	717328	813736	922086	772242	582373
France	178823	193571	211526	196254	130362
North of Europe	62632	93375	95635	75950	47786
S. Europe, Mexico &c	109164	135971	149038	134657	84120
Coastwise	202317	292527	266696	256712	152817
Total	1270264	1429180	1644981	1435815	997458

Exports of Tobacco, from New Orleans, commencing September 1, and ending August 31.

Whither Exported.	HOGSHEADS OF TOBACCO.				
	1854–55.	1853–54.	1852–53.	1851–52.	1850–51.
Liverpool	5272	6360	9458	7844	6457
London	7571	5048	6082	5197	6192
Glasgow and Greenock	.....	.....	.....	.....	.....
Cowes, Falmouth, &c.	549	573	610	982	574
Cork, Belfast, &c.	.....	.....	.....	.....	.....
Havre	8430	5707	1482	9056	659
Bordeaux	3056	2317	169	1916	517
Marseilles	6661	4423	1257	2976	3006
Nantz, Cette and Rouen.	.....	.....	.....	.....	.....
Amsterdam	100	624	800	1157	.....
Rotterdam and Ghent	.....	644	282	222	712
Bremen	5293	7970	15053	15515	7071
Antwerp, &c.	2492	3926	4034	7618	570
Hamburg	46	.....	125	475	75
Gottenburg	904	768	414	1229	941
Spain and Gibraltar	7618	6282	10175	7662	7454
Havana, Mexico, &c.	.....	.....	.....	.....	.....
Genoa, Trieste, &c.	4947	1128	1966	11134	5613
St. Petersburg, &c.	.....	.....	2647	3533	816
Other Foreign Ports	3714	2479	.....	.....	.....
New York	6019	4318	7231	13347	10087
Boston	739	126	1331	1941	1594
Providence, R. I.	.....	.....	.....	.....	.....
Philadelphia	489	190	688	1296	1118
Baltimore	103	50	124	385	754
Portsmouth	.....	.....	.....	.....	.....
Other coastwise ports	97	110	147	230	291
Western States	.....	.....	.....	.....	.....
Total	64100	53043	64075	93715	54501

Recapitulation.

Great Britain	13392	11981	16150	14023	13223
France	18147	12447	2908	13948	4182
North of Europe	9247	13932	20798	26814	9393
S. Europe, Mexico, &c.	15867	9889	14698	21731	13859
Coastwise	7447	4794	9521	17199	13844
Total	64100	53043	64075	93715	54501

Exports of Sugar and Molasses, from New Orleans for five years, (up the river excepted) from Sep. 1, to August 31.

Whither Exported.	1854–55.				1853–54.				1852–53.				1851–52.				1850–51.			
	SUGAR.		MOLASS'S.		SUGAR.		MOLAS'S.		SUGAR.		MOLAS'S.		SUGAR.		MOLAS'S.		SUGAR.		MOLAS'S.	
	Hds.	Brls.	Hs.	Brls.	Hds.	Bls	Hd.	Brls.	Hds.	Bls.	Hd.	Brls.	Hds.	Bls.	Hd.	Bls.	Hds.	Bls	Hd.	Bls.
New York	74970	6116	62	107452	102820	3605	854	103019	46561	169	....	51420	18225	134	130	26703	13595	655	509	226[illegible]6
Philadelphia	14352	320	....	20788	21090	1138	....	24514	11170	273	....	6376	6489	946	93	6384	10264	867	....	7735
Charleston, S. C	5018	10	....	17829	5449	140	....	13020	3823	407	....	10621	3524	1685	....	9519	3517	660	9	7031
Savannah	854	6	....	5047	2301	12	....	11140	1613	149	....	3777	729	99	....	2873	1702	89	....	2931
Providence & Bristol, R I	5	214	....	1273	200	....	....	1700	2631	....	....	148	....	....	319	143	....	....	....	....
Boston	2654	113	204	25508	6518	62	....	16155	82	174	213	2314	6[illegible]1	21	....	1409	733	27	....	2172
Baltimore	14445	866	....	2[illegible]366	17181	349	....	30908	10945	140	....	10327	6400	38	....	11081	3670	237	....	2862
Norfolk, Richm., Petersb.	6424	....	....	1[illegible]130	7687	9	....	12160	3629	172	....	4760	4585	838	41	5323	4072	120	....	2313
lexandria, D. C	843	....	....	749	2090	....	3	1387	1170	....	....	1329	1156	....	....	2127	552	....	....	631
Mobile	7070	....	....	263[illegible]6	9031	....	....	32303	9540	75	....	21153	5327	....	....	16187	3840	2266	....	10398
Apalachicola & Pensacola	734	226	....	3016	2181	157	....	12494	1546	55	....	5657	1399	416	....	7207	1071	254	....	4578
Other ports	2118	2565	....	16940	2858	1244	....	3545	1022	2398	....	993	2348	2857	....	5151	1131	3467	118	3677
Total	129487	10466	266	257444	179406	6716	857	262345	93732	4212	213	121875	50793	6534	583	94107	44147	8644	636	67024

Exports of Flour, Pork, Bacon, Lard, Beef, Lead, Whiskey and Corn, for two years, from 1st Sept. to 31st August.

Destination.	1854–55.								1853–54.							
	FLOUR.... Barrels.	PORK..... Barrels.	BACON.... Hhds.	LARD..... Kegs.	BEEF..... Barrels.	LEAD..... Pigs.	WHISKEY. Barrels.	CORN..... Sacks.	FLOUR.... Barrels.	PORK..... Barrels.	BACON.... Hhds.	LARD..... Kegs.	BEEF..... Barrels.	LEAD..... Pigs.	WHISKEY. Barrels.	CORN..... Sacks.
New York.....	86133	81522	9192	223541	12495	22706	2176	21517	33129	43616	2963	87088	5081	31856	1293	70236
Boston.....	93158	48792	3986	118487	10676	25799	1676	39109	7181	6240	5970	106221	7934	44655	597	50873
Philadelphia.....	.....	789	69	.....	139	1144	40	9229	91	968	98	1541	60	7688	58	2562
Baltimore.....	.....	4987	225	330	....	....	715	.....	.....	6925	138	.....	76	....	77	.....
Other Coastwise Ports.....	78846	18570	25099	25199	350	3677	35431	155610	117940	21776	25559	23054	324	....	46286	261719
Great Britain.....	27463	1286	2997	144773	6750	....	....	273646	190455	5997	9914	391129	12722	....	.....	63338
Cuba.....	707	2316	1272	191096	824	....	....	100	5905	2376	1840	174253	75	....	.....	3 687
Other Foreign Ports.....	59436	10049	472	87909	1729	....	1662	22322	231268	11483	206	25144	1605	276	2	49575
Total.....	345743	168311	43312	791635	32963	53326	41700	520933	585969	155544	46688	808430	27877	84475	48334	1107032

☞ In the above Table the Exports to Mobile, &c., via the Pontchartrain Railroad and New Canal are included.

Imports from the Interior, for four Years,

Commencing September 1, and ending August 31, each year.

Articles.	1854–55	1853–54	1852–53	1851–52
Bacon, ass'd, hds., cks,&c.	44279	47451	54356	50360
Bacon Hams.....casks	31371	32155	42868	38488
Bacon, in bulk.....lbs	232920	121000	134300	281280
Bagging, Western,.....pcs	40578	45263	64144	60044
Bale Rope, Western,....cls	95386	102274	121553	90272
Butter.....kegs and firkins	33874	47649	44444	44786
Beef.....bbls. and tierces	41578	40011	78791	52850
COTTON. Louis. & Miss....bales	865699	961526	1135172	967679
Lake.....bales	4128	19239	21614	15202
N. Alabama & Tennes	286758	256594	328176	304153
Arkansas .....bales	75259	107566	95032	85430
Montgomery, &c	16323	33798	23995	21760
Mobile.....bales	15764	31008	38324	15606
Florida.....bales	4147	9368	7866	4807
Texas .....bales	16690	21680	14685	14546
Corn, in ears.....bbls	10701	48404	17620	163008
Corn, shelled.....sacks	1110446	1740267	1225031	1397132
Flour .....bbls	673111	874256	808672	927212
Hemp.....bales	31325	19992	17648	17149
Lard.....tierces & bbls	144036	133065	118136	125496
Lard .....kegs	98326	110477	159672	157689
Lead, Pig .....pigs	70514	74296	210287	267564
Oats.....bbls & sacks	439978	586451	446956	463273
Pork .....tierces & bbls	276393	249188	316592	276606
Pork .....hhds	3067	1750	2547	2478
Pork, in bulk.....lbs	6263650	12646600	12985810	8800000
Tallow.....bbls	711	371	1318	1307
Tobacco, Leaf.....hhds	53348	48905	75010	89675
Whiskey.....bbls	108854	128925	138515	146352
Wheat.....bbls and sacks	31288	184943	47238	64918

Direct Imports of Coffee, Sugar and Salt.

For three years, from September 1st to August 31st.

	1854–55	1853–54	1852–53
Coffee, Havana..... .....bags	2287	11507	10812
Coffee, Rio.....bags	341138	228660	338412
Sugar, Havana. .....bxs	20111	13578	27087
Salt, Liverpool.....sks	603298	543601	542701
Salt, T. Isl., &c.....bus	382298	111933	305478

Value of Products from the Interior,

For seven years.

Total estimated value in	1848–49	$81,989,692
" "	1849–50	96,897 873
" "	1850–51	106,924,083
" "	1851–52	108,051.708
" "	1852–53	134.233.735
" "	1853–54	115,336.798
" "	1854–55	117,106,823

Statement of the quantity of Sugar Produced in Louisiana, each year, from 1828 to 1854 inclusive.

Crop of 1828	88,000	hhds.	Crop of 1843	100,000	hhds.
" 1829	48,000	"	" 1844	200,000	"
" 1832	70,000	"	" 1845	186,650	"
" 1833	75,000	"	" 1846	140,000	"
" 1834	100,000	"	" 1847	240,000	"
" 1835	30,000	"	" 1848	220,000	"
" 1836	70,000	"	" 1849	247,923	"
" 1837	65,000	"	" 1850	211,203	"
" 1838	70,000	"	" 1851	236,547	"
" 1839	115,000	"	" 1852	321,934	"
" 1840	87,000	"	" 1853	449,324	"
" 1841	90,000	"	" 1854	346,635	"
" 1842	140,000	"			

DEPARTMENT OF INDUSTRY.

Manufactures of Iron in St. Louis—Missouri Rolling Mill, Broadway Foundry, &c., &c.

The publicity of the facts that billions of tons of iron ores are proved to be found in their native state within 100 miles of St. Louis, that hundreds of millions of tons are found above the surface of the vallies of the Iron Mountain Region, and that the St. Louis and Iron Mountain Railroad is steadily progressing in its construction to this region, 80 miles from St. Louis—the publicity of these facts, together with the wide-spread reputation of the purity, variety and tenacity, of the extraordinary value of these ores, has aroused the attention of the people throughout the Mississippi Valley. Their eyes are set on this Iron Mountain Road, with earnest wishes for its speedy completion; and their orders are sent to St. Louis for the various articles of iron manufacture in numbers so vast that the supply cannot equal the demand.

Last month we represented the Manufacture of Stoves in St. Louis, and found that, from Minnesota to Louisiana, from east of the Mississippi river to the Great Salt Lake of Utah Territory, the orders that came could not be promptly filled, although, by the capacity of the present works, the yearly proceeds of the stove manufactures of St. Louis, are $1,000,000.

But the Iron Mountain Road is yet far from being finished, and the iron business of St. Louis is, therefore, yet comparatively, only in embryo, though it is now beginning to stir with energetic life.

Among the new signs of progress in the iron works of St. Louis we note the "Missouri Rolling Mill"—Grey & Clark, proprietors, and T. G. Molineaux constructor and manager. The ground occupied by this rising establishment is 140 feet front on Main near Carr street, by 137 feet deep.

This mill is started by imperative domestic wants, mainly for the purpose of manufacturing small, round, square and flat bar iron.

The outside appearance of this establishment is very unpretending, being bounded on the east by a small office and an old dilapidated board fence on Main street, and by ragged weather boards along the alley on the west, and covered in part by a patched roof of a similar character, the grounds having been previously used for a boiler and sheet iron establishment. But as one enters the en-

closure, at the gate an improvement is seen, being large platform scales capable of weighing 10,000 pounds.

At the left of the entrance, and adjoining the office, a large space is reserved for depositing and assorting scrap and pig iron. Close to this space one large scrap furnace, and next beyond it one large boiling furnace is built along the southern line of the grounds.

Near and almost north of these furnaces, a large alligator squeezer, stands, with open mouth, ready to press the blooming loops of scrap iron when brought out with running cinders from the furnace. A pair of muck or puddling rolls, driven from the same shaft with the alligator, run to reduce the blooms into billets of one inch and three-eighths square, also into flat bars, from three and one half to two and one half inches wide, and from 1 and ½ to ½ inch thick.

Crossing a narrow space in the middle of the grounds, where the muck billets are laid, a pair of giant shears are seen cutting the muck billets or trimming the finished iron, with capacity to cut bar iron two and one-half inches square, cold.

Two large reheating furnaces to prepare iron for finishing purposes are seen, one on the north, and the other on the south side of the grounds.

Between the reheating furnaces and near the rear of the enclosure, a finishing train of rolls runs with a capacity of turning out finished round and square iron from three inches to one-quarter of an inch diameter, and flat bars from three inches to one and one-quarter inch.

This iron, after passing again by the shears where it is trimmed, is then placed in the form of merchantable rods and bars in the warehouse, on the north side of the grounds, near the scales by the gate.

Order and economy are displayed throughout all the appointments of the establishment, excepting the disordered appearance of the shell by which it is enclosed.

A blacksmith fire, a large grindstone and a large lathe for turning rolls, placed at convenient spots, fill up some vacant spaces.

From the southwestern corner of the grounds, the whole machinery is driven by a 50 horse power engine, 13½ inches cylinder, 3 feet stroke: the engine shaft making 75 revolutions in a minute. Steam is generated for the engine by two boilers, one 40 inches diameter and 20 feet long, the other 50 inches diameter and 12 feet long, both having two flues, and the latter nine cross flues in

each flue, which cross-flues brace the main flues, and promote the generation of steam.

At the rear of the grounds, in receptacles for the purpose, the coal is deposited from wagons in the alley.

This establishment employs 40 workmen, manufactures iron from scrap or pig, rolling it into all descriptions of merchantable bar iron as before mentioned, and is capable of turning out, working six days and five nights, per week, 40 tons, average price $90 per ton: the yearly product on this estimate, being about 2,000 tons; value $180,000.

On learning that all the materials of which these works are composed, were of St. Louis manufacture, a review of the whole was taken. The furnace plates, of the scrap and boiling furnaces, made by McCords & Beck of the Franklin Foundry, are of fine finish, combining a remarkable degree of strength and elegance.

The alligator squeezer, the first one made west of the Alleghany Mountains, designed by the manager, Mr. T. G. Molineaux, and cast by Kingsland & Cuddy, of the Broadway Foundry, weighing about 4 tons, exclusive of the large pulley, made by Gaty, McCune & Co., of the Mississippi Foundry, of 2 tons, by which the alligator is driven—this whole machine, of 6 tons in weight, is simple as powerful, easily moved, and seems capable of being always in order.

The pair of muck or puddling rolls and housings, the rolls being 16 inch. diameter, and 6 feet long in the body, and weighing 8760 lbs., and the housings weighing 8758 lbs., were designed and drawn by Mr. Molineaux, and cast at the Broadway Foundry, and the other appendages of the rolls were cast by Frank Hardesty at the Iron Mountain Foundry. The rolls were turned and fit up in the Missouri Rolling Mill, on the premises, by Mr. M. himself. These rolls, housings and appendages are of original pattern in their construction, and their peculiar traits are economy, simplicity and strength.

The giant shears complete weighing about 4 tons, with all equipments were also designed by Mr. Molineaux, and were cast at the Broadway Foundry and, although used 18 months, in hard service, have not, with the exception of sharpening knives, cost five cents in repair.

The furnace plates and fire bricks of all the four furnaces were made in St. Louis. The rolls, housings and appendages of the finishing train of rolls, were also constructed by Mr. Molineaux, and

cast at the Broadway Foundry, and they work admirably well. The engine was made by Dowdall, Carr & Co. of the Washington Foundry, and the boilers by the late firm of Grey, Boyle & Clark. The large lathe for turning rolls was made at the Broadway Foundry from drawing of Mr. Molineaux.

The Missouri Rolling Mill uses exclusively Missouri coal, brought from Fulton's bank in St. Louis County, and delivered on the premises at 11 cents per bushel. 80 bushels of coal are consumed in manufacturing one ton of iron, and as the capacity of these works is equal to 40 tons of iron per week, the coal for that time is 3,-200 bushels, making 160,000 bushels a year.

The scrap iron which is now exclusively consumed in this establishment, instead of any other metal, is also all produced in St. Louis.

Thus it is seen that the Missouri Rolling Mill is furnished throughout, with every item of its machinery, and with the coal and iron for its consumption by purely domestic resources. It is owned by prudent and enterprising men of long standing in the community, and, although the constructor and manager is a new-comer to Missouri, he has certainly, at once, taken a high stand:—this, his works speak for him, and this, his practical attention to and skill in his business, blended with his polite manners, confirm.

We hope to hear soon that there are other prudent and enterprising men in St. Louis who, spurred on by the prosperity of the Missouri Rolling Mill, will invest a few hundred thousand dollars, in the establishment of a Boiler and Railroad Iron Rolling Mill at St. Louis, and secure the services of such a constructor and manager, as the one now engaged by Messrs. Grey & Clark.

The Missouri Rolling Mill, as has been said, occupies part of the ground formerly used for a boiler and sheet iron establishment. Last year a Railroad chair and spike Factory was established on one side of these grounds, then a train of rolls was added, to prepare iron for the purpose of making spikes. But last summer the Railroad chair and spike factory department was removed, and Mr. Edward Boyle, retiring from the firm of Grey, Boyle & Clark, is now carrying on the Railroad chair and spike factory, in connection with his large boiler works.

On the 2d day of October, 1855, we saw the first loop placed in the jaws of the alligator squeezer and formed into a bloom, and instantly by the muck rolls transformed into a bar, and since then have seen the muck bars, re-heated, changed into smooth and long merchantable iron.

As nearly all the iron men of St. Louis combine various kinds of iron manufacture in one firm, so also Messrs. Grey & Clark, the proprietors of the Missouri Rolling Mill, are engaged in the manufacture of boilers, and it becomes proper, while gathering the iron statistics of St. Louis, to state the whole of the business of the respective firms.

The Boiler yard of Messrs. Grey & Clark is situated on the corner of Carr and 2d streets, adjoining west of the Rolling Mill, and occupies 184 feet on 2d street, by 137 feet on Carr street: the Boiler shop being 80 feet wide on 2d street, and extending back to the alley.

The Boiler shop has consumed 30 bushels of Missouri coal a day, which equals about 9,000 bushels per year, price 11 cents per bushel. The boiler iron is purchased from Wheeling and Cincinnati, and costs with freight and various other charges delivered on the grounds about $130 per ton. 60 workmen were employed on the boiler works, at times this year, and their capacity for turning out products is equal to one boiler, on an average of 2½ tons, worth $485.00 per day; and counting 300 working days in a year, is equal to 300 boilers, amounting to 750 tons, worth $145,500, which added to the capacity of the Rolling Mill for making merchantable bar iron: 2,000 tons, worth $180,000, it is found that the capacity of the yearly produce of the whole iron establishment of Grey & Clark is 2,750 tons of iron manufactures, worth $325,-500.

In the description of the machinery employed in the Missouri Rolling Mill, frequent and honorable mention has been made of works cast at the Broadway Foundry by Kingsland & Cuddy. It would be unnecessary, as it is almost practically impossible within the range of an ordinary, literary article, to give a minute description of this establishment and its products. Its venerable character, as one of the oldest and most honorable "Institutions" in St. Louis, is worthy of a glowing eulogy from the eloquent pen of a statesman and patriot; and the biography of the estimable proprietors should embellish the pages of the historian of Missouri.

This establishment is situated on the east side of Broadway and both sides of Carr street; and, instead of any further description of the works at present, a more valuable representation—that of the actual business done last year in the Broadway Foundry, is here presented, by—an unusual favor—the permission of proprietors:

Statement of KINGSLAND & CUDDY for 1854.

Amount of Capital Employed $120,000.
Amount of Pig Iron consumed 1,500 tons.
Amount of Bar Boiler and sheet iron consumed, 300 tons.
Amount of Coal consumed, Missouri, 46,950 bushels.
" " " Lehigh, 150 casks, or 3,000 bushels.
" " " Coke from Pittsburgh coal, 13,500 bushels.
Number of workmen employed, 130 men.
Value of Pig Iron consumed, $67,500.
Value of Bar Boiler and Sheet Iron consumed, $35,000.
Value of coal consumed, Missouri, $4,742.
" " " Lehigh, $1,800.
" " " Coke, $1,755.
Amount cash paid workmen, $57,000.
Value of Products, $218,000.
Character of Products, Engines, Mill Machinery, &c.
Amount of Missouri coal consumed, 46,960 bushels.
" " Pig Iron " 150 tons.
" " Wrought Iron, 250 tons.
Of the Pig Metal consumed our principal supply is obtained from Tennessee.

These iron figures are of great importance to the statesman as well as the statistician of Missouri; for they form a solid and doubtless the best basis, on which calculations and arguments of vast influence for the public good can be built.

Mr. Cuddy informs us that he expects from 600 to 1000 tons more of pig metal will be melted this year than last in the Broadway Foundry. If the other figures increase in proportion, the value of the products of this establishment for the year 1855 will be $325,628, on the estimate of 800 tons more.

On the 18th October, we saw on the grounds of this Foundry a shaft, weighing about 6½ tons, cast for the fly wheel of an engine. The fly wheel weighs 22 tons, the center for the arms weighing 4 tons, and the rim 18 tons. These articles together with all the machinery for a large Rolling Mill, are now in process of manufacture at the Broadway Foundry. There are to be 9 pair of rolls, some of them 21 inches diameter and 6 feet long in the body. This order is from the house of Jones Loyd & Co., of Paducah, Ky., who, in July last, started the project to establish there a Rolling Mill for making boiler, bar assorted and sheet iron for nails, with a capital of about $100,000, and expect to have the works in operation on the 1st of January, 1856.

Why is it that but one Rolling Mill is established in St. Lonis? and not one for the purpose of making boiler and sheet iron? while a single Company of Wheeling, Va., has sold over $30,000 worth of this material, in the city of St. Louis within the last six months. Paducah enterprise will give her also a share in the spoils of St. Louis industry, before the capitalists of Missouri can realize the

loss they sustain or the profit they might gain. Paducah deserves great credit for this movement, and will doubtless give St. Louis a good lesson.

Hoping, on some other occasion, to treat more fully of the policy of St. Louis for the future, we would here add in conclusion of this article, that the Mississippi, Washington, Franklin and Iron Mountain Foundries, alluded to in the description of the Missouri Rolling Mill, are estimated, without the basis of exact figures, to produce alltogether about double the yearly value of the products of the Broadway Foundry; although the Mississippi Foundry employs 133 workmen, and has made castings weighing 10 tons, and the Washington Foundry employs 125 workmen, the Franklin Foundry 80 workmen, and the Iron Mountain Foundry 30 workmen; and carrying out this estimate, the value of the products of these five foundries for the present year will be $975,000; and reducing the estimate of the capacity of the whole iron business of Messrs. Grey & Clark to the probable real figures of the value of their yearly products—say $225,000, and then the products of the iron manufactures of these six houses, amounts to the yearly value of $1,200,000; but the products of the four Stove Foundries were proved to amount to the yearly value of $1,000,000; therefore, these ten houses produce yearly $2,200,000 worth of iron works; yet it should be here added, that there are, in the city of St. Louis, 25 large establishments engaged in the manufacture of iron works, from ornamental iron railing Foundries to boiler works and Railroad engines—the Locomotive establishment employing 160 workmen, while the Phœnix Foundry, engaged mainly in the manufacture of agricultural machinery, employs 128 workmen, and the Eagle Foundry, doing doubtless more business than any other iron establishment in St. Louis, employs from 240 to 280 workmen; from all of which, together with other data that we hope to disclose hereafter, we arrive at the conclusion that these remaining fifteen iron manufactories produce yearly about $2,800,000 worth of iron works, which added to the sum of the ten other establishments: $2,200,000; it is found that the 25 iron manufactories of St. Louis turn out works yearly amounting in value to $5,000,000.

NOTE.—Mr. Wm. Haslett, of the Mechanics Foundry, advises us that he is now doing about one third more of work than the estimate stated in October, and further, that on the 1st of December, 1855, he expects to turn out double the present amount.

JUN. ED.

LITERARY DEPARTMENT.

MORAL CULTURE OF THE YOUNG.

BY MRS. MARY R. HALL.

The mighty ocean is composed of drops, and the strong barrier which is placed to keep it within bounds, is formed of the minutest particles of sand. All bodies consist of mere atoms which are so combined and arranged as to make one perfect or stupendous whole. This fact which is so well understood and acknowledged by every one possessed of common sense, is as true in regard to nations, as in relation to the natural world.

The individuals which compose our nation, may be compared to atoms; alone, each one would seem to stand in weakness, and yet combined, no one can measure the extent of their power. Nor does this fact lessen the responsibility which is laid upon each individual, but rather goes to prove that no one can act his part, independent of all consequences upon the rest. In a republic like our own, which is governed and sustained by the people, every person is engaged in building up, or in pulling down the bulwarks, which have been placed for our country's defence, and upon which her safety depends. Not a man or *woman*, we care not how poor or degraded, but that grasps with a strong hand the Banner of Freedom, either to raise it unstained still higher toward heaven, or to pollute its silken folds, and dipped in the blood of martyred Liberty, to trample it into the dust!

As proof of this, we have but to point to the ballot-box, that great mint, where America coins her rulers, to teach the lesson we would fain impart. There stands the man whose mind has become weakened and debased by intemperance, whose judgment and reasoning powers have long since been steeped in the maddening bowl;—there stands the robber, the midnight assassin whose "crimes have not yet found them out," and there the blasphemer, the seducer and the Sabbath breaker! There also may be found the man of "no letters," who in his ignorance, scarcely gives the interests of his country a single thought, save on the eve of an exciting election, when he consents to become a tool in the hands of some party demagogue who bids him assist in carving his way to distinction. Behold also a multitude from foreign lands, who as yet can see but a faint glimmering of the light which throws its sacred halo around our glorious republic, whose tongues can scarcely stammer our dialect, and who are almost wholly ignorant of the principles which govern us as a nation. And these all stand claiming equal rights, and exercising equal power, with those whose whole souls are filled with zeal for their country's welfare, whose perceptive faculties have not been quenched in the fatal cup, who honor God and strive to obey his laws. Thus at a glance we perceive that every man, comparatively speaking, is in truth a law-maker; the ignorant, the vicious and unprincipled, as well as the learned, the virtuous and upright. And this must needs be so long as we remain a free and independent people.

It is true, that *woman* is denied the *right of suffrage*, but it is equally true, that the reins of power are placed in her hands, for to her is committed the care of the young. And as the perpetuity and prosperity of a nation depends more upon the strength of its moral and religious principles, than upon its ability to perform military service, or a knowledge of the arts and sciences, it becomes a question of vital importance, in what manner shall the children and youth of our land be educated and trained, that they may be well qualified to carry out the high and noble principles of a true republican government? The foundation has

been laid at vast expense; it has been cemented together by the blood of the slain, and bears unmistakeable evidence of the labor, the peril and the skill of its architects.

And shall the work go on to completion, or shall ruthless hands destroy the costly fabric, ere the finishing touch has been given to its proud halls and lofty domes? In all probability the next generation will decide this momentous question. And is there no cause for fear, when we look forward beyond the dark shadows which hide from us the misty future? Can we behold the lack of *moral principle* which pervades all classes of society, and not tremble for the awful result? Is it a matter of small importance, that a large majority of our youth are addicted to evil practices, which not only tend to demoralize, but to destroy all that is good and noble within the human soul; which will not only render them unfit to govern righteously and wisely, but will blind their judgment when called upon to choose others to rule over them?

And what are the vices which are corrupting our children and youth—b what are they encouraged and strengthened, and what means should be used for their extermination? These are questions of untold importance; and are well worthy the study of the philosopher, the philanthropist and the Divine. In answer to the first, we would name Sabbath-breaking, profanity, gambling, licentiousness and intemperance as standing first among the grosser vices; while a multitude called '*little sins*' are indulged in, but leading invariably to the same result. And so general have all these vices become, that to find a youth *entirely exempt* from any pernicious habit, may be likened to a gem found among the sands of the sea-shore!

Reason and observation teach us the fact, that all these vices are strengthened and encouraged by frequenting those places of amusement which are injurious to both mind and morals. Theatres, circuses, and all kindred places of resort as they *now exist*, are but nurseries of vice and immorality, and should be frowned upon by all lovers of virtue and religion. That many such places might be purified, and made to exercise a healthful influence, while they afforded amusement and instruction for the young, we do not for a moment doubt; nor do we hesitate to say, that if any are incapable of being reformed, they should not be suffered to exist in our land.

Idleness and *Ignorance* are also parents of vice. In all our large cities and towns, hundreds of children are unemployed, roaming about ever restless, until vice tempts them into her haunts, when they become her willing victims. And yet, steeped in sin and covered with pollution, they are soon to stand at the ballot box, and place their hands upon our country's destiny! O God! the thought is paralyzing; and already would we commence chanting the requiem over freedom's opening grave, were it not for the thought that Thou reignest, and in Thee there is hope!

Again, vice receives no greater encouragement than from the disregard which is paid to its existence. So long as the rich, the learned, the influential, are addicted to evil practices, or so long as they make little or no effort to banish them from the community in which they dwell, just so long will our land be flooded with guilt and crime. Vice needs no greater strength than what can be gathered from such heartless apathy! There are thousands who are shocked at the mention of any atrocious crime, who pause not to think what course of training in all probability prepared the perpetrator for the awful deed, nor do they see fit to place one barrier in the way of others who are already travelling the same path to disgrace and ruin. They would perchance tell us, that the vices to which we

have alluded are mere indulgencies which human nature in her weakness craves, and against which it is useless to make resistance. Small as they may appear to some, they are none the less formidable. Though they are but atoms, yet if our nation be composed of such, what a mass of corruption it must present to Him who regards only the things that are pure, and who will most assuredly visit our iniquities upon us. Our great danger lies in not placing a true estimate upon the corrupting influences of the present age; we are reaching upward to lop off here and there a branch of the fatal upas, while the root is left to increase in size and strength. Thus wickedness and crime will increase; and in proportion, will our rulers be unjust men, who fear not God, neither will they strive to obey his laws, nor will they hesitate to bring destruction upon the people who have invested them with power.

Does not, then, the moral culture of our youth become a matter of untold importance? Is there a subject that demands immediate attention so much as this; or one, if neglected, that is fraught with such disastrous consequences?

With the peace, prosperity and happiness of a nation at stake, methinks every effort should be made for the suppression of vice, and for the effectual removal of every thing that tends to corrupt the morals of our youth. Divines should more earnestly preach and labor and pray—philanthropists should enter the field with strong, determined hearts, and attack the citadel of the enemy—the Press should open its batteries and charge with unceasing vigor upon the strongholds of vice—while every one who has power to wield a pen, should use it as a mighty weapon in defence of the noble principles which we so feebly advocate. Strict attention should be paid to the moral training of children both by parents and teachers; every evil tendency should at once be counteracted, and no deviation from the path of rectitude should be passed by, as a matter of little importance. Ignorance and idleness should not be tolerated in any community; employment should be sought out for every one who is able to labor, and the time be divided between their physical exercise and mental improvement. JUVENILE REFORM SCHOOLS should be established upon a permanent basis, in every city throughout our land, while our laws should be such as would force obedience to the divine commands. In short, no evil practice should be passed by unnoticed, nor indulgence in any vice be left unrebuked.

What a blessed change would be manifest, were the highways to destruction thus effectually hedged up, and how glorious would be our future destiny as a nation! God grant that this may speedily be the case; and may the remnant of the present generation as they stand tottering upon the verge of the grave, have no cause to weep over the fall of Freedom's Banner, or to bury their crushed hopes in our country's tomb.

KEOKUK, IOWA.

THE ST. LOUIS MERCANTILE LIBRARY ASSOCIATION, a great intellectual machinery for moving and raising the internal world of thought and feeling, will be employed by an Archimedes of this age—Prof. Benj. Silliman, Sen.—in delivering a course of twelve lectures on Geology, commencing Nov. 6th and concluding Dec. 1st, 1855, when leading people from the Capital and body of the States of Illinois and Missouri, having easy access by Railroad to St. Louis, should embrace the opportunity of hearing a great man on the solid subject which is now engaging the attention of people of sense, science and religion throughout the civilized world.

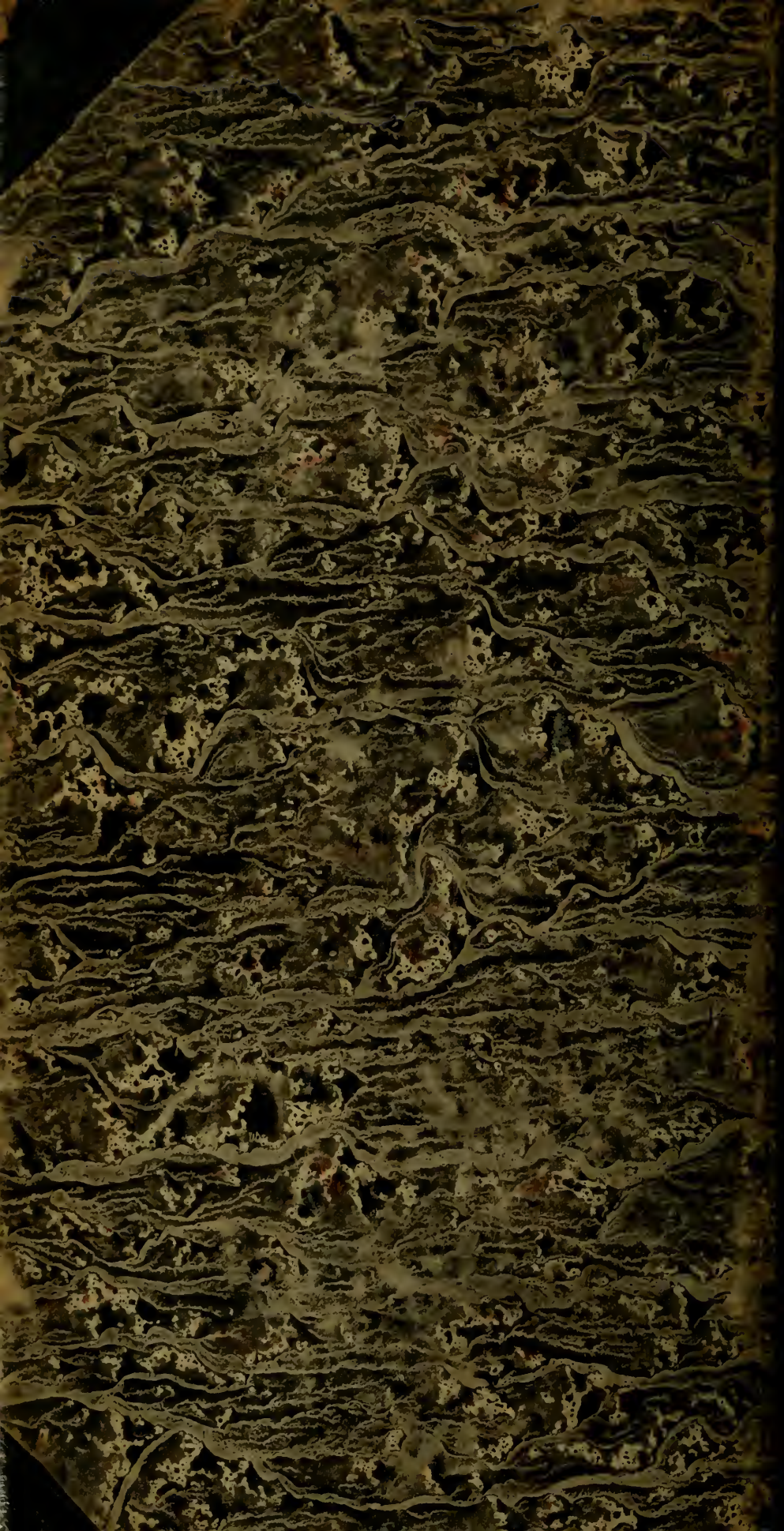
THE ST. LOUIS & IRON MOUNTAIN R. R.—The forces at work on this road are about 1700 men; large quantities of cross ties are delivered along the line, 1000 tons of iron rails are on the way from Pennsylvania, where they were manufactured, and they are to be delivered on the road during November, two locomotives made in St. Louis are nearly ready for the track, and we hope that, when the year closes, a portion of this road will be opened.

PACIFIC R. R. OPEN TO JEFFERSON CITY.—On the 4th of October, we passed over this road, 81 miles, to the vine-clad city, enjoyed the beautiful scenes among the hills and vallies of its environs, the bountiful table of good things spread by Mr. Leimer, of the Hermann House, and brought home some of the last delicious clusters of the vineyards. A train of cars is expected to run from St. Louis to Jefferson City, 125 miles, 44 miles beyond Hermann, on the 1st day of November, 1855, when the people of Jefferson intend to celebrate the opening of the road to the Capital, and where a State Convention is to be held for the purpose of devising measures to promote the Railroad interests of the State; on which occasion it is hoped that all VIS INERTIA will be removed, a good feeling and earnest energy combined, and, if no better ways and means can be found to gain the "consummation devoutly to be wished," that strong resolutions will be established to Change the Lien, and, between the State and her enterprising citizens, to adopt a more Mutual Policy.

OHIO & MISSISSIPPI RAILROAD, has engaged the services of James M. Ward as General Superintendent, and A. W. Dana, Assistant Sup't, has increased its speed, and, forming close connections withvarious railroads east of Vincennes, commenced on the 10th October, 1855, transporting passengers through from St. Louis to New York in 45 hours. The popularity and prosperity of this road is now rapidly increasing.

BELLEVILLE & ILLINOISTOWN RAILROAD.—This road, with a single track, is about doubling its business at St. Louis, by closing the connection with Alton. Three roads of Illinois now converge opposite St. Louis, while two of them, by connections formed elsewhere, are united with all the other railroads in that State. We are pleased to see the liberal policy gaining the ascendancy.

THE NORTH MISSOURI AND HANNIBAL & ST. JOSEPH R. R. seem to be each striving to gain first the heart of the Mesopotamia of America. Large forces are at work on each of these roads. The H. & St. J. R. R. was chartered first. The engines on the N. M. R. R. started first, but the H. & St. J. has the advantage particularly of the ground, and will doubtless win.

KEOKUK, MT. PLEASANT & MUSCATINE R. R.—This part of the Mississippi Valley Railroad is progressing in construction. Col. Laurin Dewey, the President, and J. K. Hornish, Esq., Gen'l Agent, propose to raise $50,000 in St. Louis for the purpose of equipping the road, and on the 27th of October had realized $25,000. We trust this amount may be doubled in quick time and that the work will go bravely on.

E. BUEHLER, No. 31, 3d street, St. Louis, presents us with "Pictures of Travel, translated from the German of H. Heine by Chas. G. Leland," also "English, French and Spanish Phrase Book, by J. Strause." We prefer the Phrase Book to the Fancy Pictures, and recommend his store as a curiosity shop of literature.